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THE ENERGY POLICY ACT OF 2005

HEARINGS

BEFORE THE

SUBCOMMITTEE ON ENERGY AND AIR QUALITY

OF THE

COMMITTEE ON ENERGY AND COMMERCE

HOUSE OF REPRESENTATIVES

ONE HUNDRED NINTH CONGRESS

FIRST SESSION

FEBRUARY 10 and FEBRUARY 16, 2005

Serial No. 109–1

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THE ENERGY POLICY ACT OF 2005

THURSDAY, FEBRUARY 10, 2005

HOUSE OF REPRESENTATIVES,
COMMITTEE ON ENERGY AND COMMERCE,
SUBCOMMITTEE ON ENERGY AND AIR QUALITY,
Washington, DC.

The subcommittee met, pursuant to notice, at 9:38 a.m., in room 2123 of the Rayburn House Office Building, Hon. Ralph M. Hall (chairman) presiding.

Members present: Representatives Hall, Bilirakis, Whitfield, Shimkus, Wilson, Radanovich, Walden, Otter, Murphy, Burgess, Barton (ex officio), Boucher, Ross, Markey, Engel, Wynn, Green, Capps, Allen, Davis, Solis, Gonzalez, and Dingell (ex officio).

Also present: Representatives Inslee and Pitts.

Staff present: Mark Menezes, chief counsel for energy and environment; Kurt Bilas, majority counsel; Margaret Caravelli, majority counsel; Maryam Sabbaghian, majority counsel; Tom Hassboehler, majority counsel; Sue Sheridan, senior minority counsel; Bruce Harris, minority professional staff; and Michael Goo, minority counsel.

Mr. HALL. The subcommittee will come to order, and without objection, the subcommittee will proceed pursuant to Committee Rule 4(e), which allows members the opportunity to defer opening statements for extra questioning time. I think we all most of us know the rules.

The Chair recognizes himself for an opening statement. Today, the subcommittee holds a hearing on energy legislation that will help ensure jobs and national economic security through wise energy policy, we hope. I want to start off by welcoming and thanking all of our esteemed panelists for being with us here today. I know it takes your time to prepare, to get here, and the time you give us today, and we want to be considerate of your time, in shortening our opening statements as much as we can, and getting on with hearing the panelists. I want to especially welcome some of our out-of-town guests, Governor Murkowski. Where is the Governor? Yeah, I am going to get him in a minute. Yes.

Governor Frank Murkowski, from the great State of Alaska, will be testifying on behalf of the National Governors Association. Governor Murkowski has served with distinction as the chairman of the Senate Energy Committee, and has played an integral role in our efforts to bring comprehensive energy reform to the people of this country, and as chairman of this subcommittee, I want to thank you for that, Governor, and thank you for the time, and thank you for your appearance here today.

I want to also welcome Victor Carrillo from the Texas Railroad Commission, one of our very own. One of the energy regulatory agencies for the State of Texas. He is here on behalf of the Interstate Oil and Gas Compact Commission. It is a pleasure to have you join us here today in our Nation's capitol, and thank you very much.

Our Nation and our way of life have been built on a foundation of affordable and reliable energy. From this foundation comes national and economic security, comes jobs, personal freedom, and comfort. Americans have been blessed throughout history with secure and reliable energy. To secure this foundation of the future, we must do, as our President said last week in his State of the Union Address to Congress, "what Americans have always done, and build a better world for our children and our grandchildren."

To this end, we distributed draft legislation for discussion earlier this week that reflects several years, and no less than hundreds of hours of hard work, and what we have before us is comprehensive energy legislation that will reduce our Nation's energy demand by promoting conservation through new energy efficiency. We have comprehensive energy legislation that will increase our Nation's energy supply by making smart use of our resources through clean coal technology, and by promoting the use of renewable energy sources such as water, wind, solar, and geothermal. Comprehensive energy legislation will improve our Nation's energy supply by promoting reliability and investment in the electric sector.

Our Nation's energy supply would also be increased by developing new technologies for the domestic production of oil and gas. For example, ultradeep water research will make many unavailable reserves in the Gulf of Mexico a reality, thereby decreasing our need for foreign sources of oil and gas.

These are just some of the positive features of this energy legislation. No one piece of legislation alone will secure our future. Only a comprehensive approach creates a structure for the diverse use of our own domestic resources, so that we need to depend less on foreign sources of oil. Nowhere is this concept truer than the area of energy. A rich wealth of natural gas in Alaska and the Gulf of Mexico serve the entire Nation through a natural gas pipeline network, not just the States where it was produced. Electricity transmission grids are linked from State to State, and region to region. Coal mined in the East and the West can supply feedstock to power plants all over the country. Hydroelectricity from the Colorado River can supply power to most parts of the West. By diverse use of all of these energy resources, we will ensure national and economic security, jobs, personal freedom, and once again, comfort.

We certainly know that the regional crises we have had, like in California, that crisis diminished the California economy. It was a great State, the largest State in the Union, a State that we absolutely could not allow to continue to suffer as they had suffered through certain stages. And I think all the States came together. Constriction on energy for the U.S. means, of course, not just for States that are hit, like California was hit, and others, but means a loss of jobs, a weaker economy, a greater dependence on unstable foreign regimes, a weaker national defense, and a lower quality of life. So we have to do now what it takes to control our jobs, to control our quality of life, and our national and economic security.

Today, we are going to hear from a series of individuals representing agencies of the U.S. Government and various industry groups, all with expertise in their respective areas. We thank you for your time, and we welcome your views and guidance on this legislation, especially with respect to issues facing your industry as they relate to our Nation and our people's energy security.

I will now recognize Ranking Member Boucher, the gentleman from Virginia, for 5 minutes.

[The prepared statement of Hon. Ralph M. Hall follows:]

PREPARED STATEMENT OF STATEMENT HON. RALPH HALL, CHAIRMAN, SUBCOMMITTEE ON ENERGY AND AIR QUALITY

The Subcommittee will come to order. Without objection, the Subcommittee will proceed pursuant to Committee Rule 4(e), which allows Members the opportunity to defer opening statements for extra questioning time.

The Chair recognizes himself for an opening statement. Today, the Subcommittee holds a hearing on the energy legislation that will help ensure jobs and national and economic security through wise energy policy.

I wanted to start off by welcoming and thanking all of our esteemed panelists for being with us today. I want to especially welcome some of our our-of-town guests. Governor Frank Murkowski from the State of Alaska will be testifying on behalf of the National Governor's Association. Governor Murkowski served with distinction as the Chairman of the Senate Energy Committee and has played an integral role in our efforts to bring comprehensive energy reform to the people of this country and as Chairman of this Subcommittee, I want to thank you for that.

I also want to welcome Mr. Victor Carrillo from the Texas Railroad Commission, one of the energy regulatory agencies for the State of Texas. Mr. Carillo is here on behalf of the Interstate Oil and Gas Compact Commission. It is a pleasure to have you join us here today in our nation's capitol.

I favor a practical policy of putting first things first. Our nation and our way of life have been built on a foundation of affordable and reliable energy. From this foundation comes national and economic security, jobs, personal freedom, and comfort. Americans have been blessed throughout history with secure and reliable energy. To secure this foundation of our future, we must *DO*, as our President said last week in his State of the Union address to Congress, "what Americans have *ALWAYS DONE*, and build a better world for our children and our grandchildren."

To this end, we distributed draft legislation for discussion earlier this week that reflects several years and no less than hundreds of hours of hard work to produce:

- comprehensive energy legislation that will reduce our nation's energy demand by promoting conservation through new energy efficiency;
- comprehensive energy legislation that will increase our nation's energy supply by making smart use of the resources our nation has in blessed abundance through clean coal technologies and by promoting the use of renewable energy sources such water, wind, solar and geothermal renewables; and
- comprehensive energy legislation that will improve our nation's energy supply by promoting reliability and investment in the electric sector.

Our nation's energy supply would also be increased by developing new technologies for the domestic production of oil and gas. For example, ultradeep research will make many unavailable reserves in the Gulf of Mexico a reality, thereby decreasing our need for foreign sources of oil.

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I'd like to take a moment to talk about our differences in this room when it comes to energy policy. As our President said in his State of the Union address to the Congress last week, "four years of debate is enough." In recent months we have seen the spot market for oil reach above $55 a barrel. Just three weeks ago the spot price for natural gas in the Northeast went as high as $45 per MCF. We do not want to move from energy crisis to energy crisis. Through comprehensive energy legislation, we will take the steps to make sure America does not face energy rationing as we did in the late 70's. That crisis drove down jobs, transportation and quality of life. We will take the steps to protect against regional energy crises like those faced recently in California. That crisis diminished the California economy. Constriction on energy for the U.S. means loss of jobs, a weaker economy, greater dependence on unstable regimes, a weaker National defense and a lower quality of life. We must take the steps now to control our jobs, quality of life, and our National and economic security.

Today we are going to hear from a series of individuals representing agencies of the United States Government and various industry groups. I thank you all for your time. I know we have several panels of witnesses, all with expertise in your respective areas. We welcome all of your views with respect to this legislation and especially your guidance with respect to issues facing your industry as they relate to our nation and our people's energy security.

Mr. BOUCHER. Thank you very much, Mr. Chairman. I appreciate your organization today's hearing, and assembling 3 excellent panels of witnesses to inform the subcommittee during the course of this day.

Chairman Barton earlier this week circulated a discussion draft of comprehensive energy legislation, which is largely identical to the conference agreement that was achieved during the 108th Congress. Given the passage of time since the consideration of the bill last year, and the formation of that conference agreement, it is appropriate that we conduct these hearings to examine the need for legislation through the lens of the current energy market, and I appreciate the indication by the chairman that this will be the first of two hearings on the energy measure.

I supported passage of comprehensive energy legislation during the last two Congresses, and I continue to believe that the adoption of legislation is desirable. While I don't support all of the provisions of the conference report, there are a number of sections of the report that I think will, in fact, improve significantly our Nation's energy policy. The conference report from last year contains a number of non-controversial items, such as improvements to energy conservation, permanent authorization of the Strategic Petroleum Reserve, and the Northeast Home Heating Oil Reserve, and a number of research and development provisions. Of particular interest to me are sections which promote the use of clean coal technologies.

With natural gas prices at unprecedented highs, homeowners who heat with natural gas and a broad range of American industries, from agriculture to aluminum manufacturing, are feeling the effects. In my view, one of our most urgent items of business is taking the legislative steps required to incent electric utilities to lessen their reliance on gas in the new generating units they will be constructing.

And there is an obvious answer. Coal is the Nation's most abundant fuel, with reserves sufficient for the next 250 years. Coal generates electricity at less than one half the cost of the fuel alternatives, and consumers get the best prices when they consume electricity that is generated through the combustion of coal. New technologies such as integrated gasification combined cycle enable coal to be used for electricity generation in a manner that is as clean as the combustion of natural gas. I commend the provisions and the draft legislation that would accomplish the goal of incenting coal use, and thereby relieving, to some extent, the pressure on natural gas prices.

With regard to the electricity title of the conference agreement and the draft legislation, I remain concerned about the total repeal of the Public Utility Holding Company Act without ensuring that adequate consumer safeguards, with strong Federal oversight remain in place. In addition, I have not been convinced that there is a need to give the Federal Energy Regulatory Commission authority to cite transmission lines. I am pleased, however, that during the last Congress, we were able to reach a compromise regarding the application of PURPA, and the legislation contains the non-controversial and much-needed section that would make transmission reliability standards both mandatory and enforceable. I think we need to learn more about the practical effect of the change to that section that is made in the discussion draft, which would cap the spending allowed for implementation of the reliability standards.

Today, we are hearing from 3 distinguished panels. They will be covering a wide variety of topics related to national energy policy. I welcome them, and thank you, Mr. Chairman, for assembling them.

Mr. HALL. Thank you. At this time, we recognize Chairman Barton, Energy and Commerce Committee, for as much time as he consumes.

Chairman BARTON. Well, thank you, Chairman Hall. I appreciate you holding this hearing. Today and next week, a fair number of the audience will have testified by the time we get through with it. We are really reaching out to get a lot of perspective on the bill. I see my good friend, the former Senator from Alaska, now the Governor, Mr. Murkowski, in the audience. I remember sitting in his office 4 years ago with former Chairman Tauzin, trying to figure out how to get that energy conference bill out of the conference. So we are starting the process today, and especially my friends on the Democratic side of the aisle, I want to encourage them to listen. I am strongly, strongly, strongly thinking about doing a very open markup. I would love to improve this bill and take it to the floor, with strong bipartisan support, and a lot of what we hear in the next two—this hearing and the next hearing—is going to make a determination whether we do a markup, and how we structure it. But this is like the Energizer Bunny commercial. This is the bill that will not die, and this is the year, and this is the Congress that we are going to pass comprehensive energy legislation, so I would strongly encourage all my friends on both sides of the aisle, not just the Democratic side, to really participate in these hearings, because you know, I think an open process is the better process, and I would love to have a markup where we can improve last year's work product, and then take that product to the floor.

With that, Mr. Chairman, I appreciate your leadership, and look forward to the hearings today and next week.

[The prepared statement of Hon. Joe Barton follows:]

PREPARED STATEMENT OF HON. JOE BARTON, CHAIRMAN, COMMITTEE ON ENERGY AND COMMERCE

I want to thank Chairman Hall for holding this hearing today on the Energy Policy Act of 2005. I also want to welcome Governor Murkowski of Alaska, Chairman Carrillo of the Texas Railroad Commission, Chairwoman Showalter of the Washington Utilities and Transportation Commission and Assistant Secretary Garman. Chairman Hall has been able to assemble some very distinguished panels today.

This is the second of our scheduled hearings to address this important legislation. Yesterday we heard from Secretary Bodman on the energy bill. Beginning today, we will hear from elected officials and stakeholder groups. As I stated yesterday, many of us in this room, Republicans and Democrats alike, have worked very hard on the provisions contained in the conference report on which we will take testimony today. The bill before us is not perfect, but it's balanced. It has been open to the public since November 2003, has been passed by the House with large majorities twice and received 58 votes in the Senate. So there must be a lot of good policy in it.

Today we will hear testimony on the electricity and energy efficiency provisions. Both titles received a large amount of support from policy-makers and experts. Our investor-owned utilities, public power, the power generators, and the co-ops—all those who provide electricity to our nation's industrial, commercial and residential users—supported the electricity title. In fact, it's the first electricity title supported by all those groups.

The energy efficiency provisions likewise received wide support from policy-makers, experts, and those in the business of making more effective and efficient use of energy. Few people disagree with the need to conserve and save energy where appropriate.

So today, we invite your comments and suggestions on these provisions. All changes will be considered carefully and fairly. We must recognize that any changes made must improve the chances of the bill becoming law. I agree with our President, four years is long enough for an energy bill.

One additional comment on our effort to control costs of the bill. As everyone in this room knows, we rely on CBO scores to determine the cost of the bill—whether we agree with the score or not. In fact, we wrote a letter to the CBO protesting the score of both the reliability provisions in the electricity title and the Energy Savings Performance Contracts in the energy efficiency title. We tried to cap the score at $500 million each to address the score only—not because we think we need a less reliable electricity grid or that savings to our government from lower energy costs should be limited.

Finally, we need to recognize access to energy supplies is a critical concern around the world. China, India, and Brazil are all using greater and greater amounts of coal, oil and gas. Dependence on foreign sources of these fuels is becoming riskier and more dangerous to America's dynamic economy. This energy bill is vital to the continued prosperity of the United States. It will allow America to take control of its energy future and ensure that all Americans have access to abundant supplies of clean, affordable energy to power their homes and jobs. I look forward to the comments of those testifying today.

Mr. HALL. Thank you, Chairman Barton. At this time, I recognize the Dean of the House, the longtime, venerable Chairman of this Committee, Dean of the House, but not the oldest Member in the House, John Dingell, for as much time as he consumes.

Mr. DINGELL. Thank you, Mr. Chairman. I will respect the limits of the time of the committee. First of all, thank you for recognition. Second of all, I am pleased to see we are moving toward developing a comprehensive energy policy for the committee and for the country.

We are faced with pressing energy issues. It is very appropriate that this committee, with its expertise in these matters, should be the starting point for all discussions. Unfortunately, by starting with last year's failed conference report, we are sending the signal that the Congress is not serious about developing a sensible energy plan, but rather intent upon peddling the same tired special interest laden bill that the Senate rightly rejected last year.

I feel a little like I am being forced to watch a rerun of a television show that was never popular in the first place. I must register my concerns with the process to date. My regard with regard to due process is well established. I believe this committee has a duty to understand the consequences of legislation which it may pass, and that the hearings which are part of the process are the best mechanism through which to gain such understandings. While I am encouraged that Mr. Barton has agreed to hold an additional day of hearings, I believe that 2 days is not adequate when we are dealing with topics of this complex and important character, and could be an embarrassment for this committee, if we brought a comprehensive energy bill to the floor without a markup.

My friends on the other side of the aisle will say that we have held numerous hearings on this bill, and they are correct in that, but the last hearings we held were nearly 2 years ago. The world has changed much since that time, and we have many new members. For example, the natural gas, crude oil, and gasoline prices have reached all time highs in the last couple of years. Revelations continue to appear regarding the conduct of Enron and other corporations in the energy business, and the devastating effect of—in that industry, and what it has done to the western electricity markets and their consumers.

And difficult questions have arisen regarding the siting and security of liquefied natural gas facilities. These are just a few of the many examples of the policy questions facing this country. Any bill we consider should reflect our current realities as we look to our future needs. With regard to the discussion draft released by my good friend Chairman Barton earlier this week, I still have the same concerns with this bill I did the last time we considered it: repealing the consumer and investor protections contained in the Public Utility Holding Company Act, the absence of reform to prevent another Enron fiasco, the weakening of fish and wildlife conservation standards contained in the hydroelectric relicensing process which were put in after careful negotiations with the industry on this very point, and the numerous special interest goodies that have been inserted into the conference report in the dead of night without careful public scrutiny. These are hardly the kind of policies and behavior that give the public comfort that we are about our business in a serious and bipartisan fashion.

While I understand that the discussion draft is largely similar to the conference report on H.R. 6, there are some differences, and I would point out they are not inconsequential. The price tag for last year's bill, at $31 billion, raised legitimate concerns. In an attempt to lower this cost, the draft places a cap on the activities of the electric reliability organization, a curious thing when we consider the cost of a failure of the electrical distribution system of this country, and what it means to consumers, industry jobs, and opportunity. This is, I think, a foolhardy and nearsighted approach. Can we assume that the Nation will have less reliability because the Congress is trying to engineer its way out of a morass, which has been made by the processes of the Congress? Will the enforcement activities of this reliability organization be constrained by a budget gimmick? Surely, when blackouts are estimated to cost the Nation nearly $80 billion annually, we can agree that the integrity of the transmission system is too important to tamper with in this manner.

In closing, Mr. Chairman, I believe that there is still opportunity to reach a bipartisan consensus, as we did in this committee in the 107th Congress. I stand ready to roll up my sleeves and to do the work required. I fear, however, that on our present course, we will have another 2 years of partisan gridlock. That is a matter which I greatly regret, and I thank you for your kindness.

Mr. SHIMKUS [presiding]. We thank the ranking member, and now, the Chair recognizes the gentleman from Florida, Mr. Bilirakis.

Mr. BILIRAKIS. No opening statement.

Mr. SHIMKUS. No opening statement. The gentleman from Kentucky, Mr. Whitfield. The gentleman from Pennsylvania, Mr. Murphy. The gentleman from Texas, Mr. Burgess. Would you like to make an opening statement?

Mr. BURGESS. At this time, I will submit one for the record.

Mr. SHIMKUS. The gentleman from California. Opening statement? The gentleman from Illinois.

I wasn't going to, but after listening to the ranking member, I will. But I will be brief. The failed energy bill that he speaks of only failed at the final end. It was due to a minority of Senators using the filibuster; had the Senate put it on the floor, it would have passed. It was a very deliberative process and we worked very, very hard. Chairman Barton is contemplating going through the entire process again, and we will probably do that. But I just want to let my colleagues know that I am strongly lobbying for him to take H.R. 6 straight to the floor because of all the great benefits it does for this nation, for coal generation, for clean coal technology, for a hydrogen economy, renewable fuels, exploration, the transmission grid. It is just like all of the tough debates that we have here in Washington, D.C., the longer you wait, the more difficult it is, and you put off problems that should be reconciled earlier rather than later.

I will probably be in the minority on that, and we will probably move on marking up, but I am on record saying that H.R. 6 ought to be on the floor next week. Actually, it should have been on the floor this week. It should have been the first order of business, so that we can move into tough negotiations with the Senate to get the bill passed. And with that, I yield back the balance of my time.

The Chair recognizes the gentlewoman from California.

Ms. CAPPS. Thank you, Mr. Chairman. I am pleased we are beginning what I hope is a comprehensive process to produce an energy bill we can all support, and I believe that requires the committee to follow regular order, with comprehensive hearings and markups, and I commend our chairman for his remarks earlier to this effect.

Clearly, addressing our energy problems is critically important for our country, and clearly, this committee, all members, should be fully engaged in that effort, and not get sidelined by the leadership of the House. And we shouldn't just let a conference committee write the bill in secret. In addition, Mr. Chairman, I read with interest your statement yesterday about perhaps moving smaller bills individually, since the approach of one giant bill has failed repeatedly. That is a suggestion worth considering, especially if we could start with the electricity reliability provisions contained in H.R. 6, and introduce the standalone legislation by Mr. Dingell. These provisions have wide bipartisan support, and should have been passed years ago, to protect consumers from more blackouts.

Mr. Chairman, I opposed H.R. 6 when the committee considered it, and voted against the conference report as well. The discussion draft has been noted—as has been noted, is essentially the conference report, and I think that is a shame. Clearly, H.R. 6 fell short of votes last Congress, and I would expect and hope a bill of substantially the same markup would meet the same fate this time around. There—that is one reason we need to revisit the bill in a comprehensive fashion. Obviously, the bill needs to change for it to pass.

We need also to change it into something resembling a rational energy policy. Energy efficiency and conservation must be a more central part of our energy strategy. We will never be energy independent, never, so long as we rely upon fossil fuels as our major source of energy, which we will do for some time. We simply don't have the natural resources to be energy independent, and China and India's demands for energy mean increasing our reliance on foreign or—sources of energy, like H.R. 6 would do, and that is a path fraught with peril. H.R. takes some steps toward efficiency, but it still omits the most important steps we can take right now: increasing fuel efficiency of our cars and truck. This single step would result in benefiting consumers and our economy, and reduce our dependence on foreign oil. And we can do so much more to make our buildings and appliances more efficient. We could also do more to expand our use of renewables, like enacting the Federal Renewable Portfolio Standard. Instead of this proven step, the bill creates a complicated mandate for one renewable, ethanol. The provisions granting retroactive liability protection for the producers of the gas additive and groundwater pollutant MTBE leave hundreds of communities with billions of dollars of cleanup costs. MTBE provisions are widely credited with sinking the bill last year and should be jettisoned.

The bill also reduces States' ability to enforce their coastal zone management plans for the controversial LNG facilities and pipelines. This is bad for the environment, bad for long-term economic interests of coastal States like mine. I don't dispute the need for new sources of natural gas, but we need to explore this issue further before enacting legislative ideas, and the discussion of drafts and other bills.

We certainly must not run roughshod over the localities' desire to have a voice in the construction of these projects. I am sorry for going over my time, but I hope the committee can improve the discussion draft over the coming weeks and months.

I yield back.

Mr. SHIMKUS. The gentlewoman yields back her time. Let me remind my colleagues that we are going to try to hold regular member statements down to 1 minute, as per the agreement with the committee, and that is the same rules as for the subcommittees.

Ms. CAPPS. Could I——

Mr. BOUCHER. Will the gentleman yield?

Mr. SHIMKUS. The gentleman will yield.

Mr. BOUCHER. As I understand it, there are no rules governing opening statements at the subcommittee level. Am I correct about that?

Mr. SHIMKUS. I think you are correct, but we assume the rules that were passed and negotiated with the minority on opening statements for the full committee, out of respect to 2 days worth of panelists, would apply. And I didn't want to interrupt. I didn't want to take away from your time, but I think the whole idea with the discussion on opening statements was to have respect for the people that we bring here on a daily basis, to get our statements through, so that we could move to the hearings.

Mr. ENGEL. Mr. Chairman, may I have a point of inquiry?

Mr. SHIMKUS. The gentleman from New York is recognized.

Mr. ENGEL. I respectfully believe, I could be wrong, that while we—the new rules restricted opening statements at full committee to 1 minute, that on subcommittee, it restricted it to 3 minutes. I believe that—those were the rules that we passed. I don't think I am wrong——

Mr. SHIMKUS. Let us, for the sake of time, if I may, for today's hearing, since all of the Republicans have yielded back their time, we will go with 3 minutes. We will take this up with the chairman and the subcommittee chairman, but the intent is not to stifle discussion or debate. The intent is to have respect for our visitors, who sometimes have to sit through 2 hours of opening statements. And that is the intent. With that, if can agree upon that right now, we will discuss this and try to come to some agreement with the ranking member and the committee chairman.

The gentleman from California.

Mr. RADANOVICH. I just want to voice my support for short opening statements, because you know, I spend a lot of time with everybody on this panel, and I really all know where you are coming from. What really interests me is the guests that are here with, perhaps, new information, because a lot of this begins to sound like broken records. So if we can get onto the panelists as fast as possible, I would really appreciate it.

Mr. SHIMKUS. Thank you, and the chairman would like to reclaim his time, and now recognize the gentleman from New York for 3 minutes.

Mr. ENGEL. Thank you, Mr. Chairman, and let me just say that opening statements are very important to the minority. It is sometimes the only chance we get to speak, because the Democrats have been repeatedly shut out of one process after another.

Mr. SHIMKUS. Thank you. If the gentleman would yield.

Mr. ENGEL. Certainly.

Mr. SHIMKUS. I stand corrected. As far as I have just been informed, the subcommittee time is 3 minutes for members still.

Mr. ENGEL. Thank you.

Mr. SHIMKUS. My apologies to my colleague from California.

Mr. ENGEL. Thank you, Mr. Chairman.

Mr. SHIMKUS. And my colleagues on the other side.

Mr. ENGEL. I appreciate that. I am glad that we are continuing the dialog on our Nation's energy policy. I am hopeful that these hearings will result in a markup of any energy legislation that comes to full floor for consideration. I am hearted by Chairman Barton's mentioning, both yesterday and today, that he hopes we can have an open markup, and I would hope that the bill that we eventually pass is a more middle of the road bill than H.R. 6.

If we really want to move forward on energy policy in this country, we really need a true bipartisan consensus. And while there were a lot of good things in H.R. 6, there were a lot of things that trouble many of us, particularly on this side of the aisle, and I would that the majority would listen to what we have to say. We don't want to be obstructionist, but we have very strong feelings, and I do think there is a middle road, and I hope we can pursue that middle ground.

American energy policy is at the crossroads, and our national security is being compromised daily by our dependence on foreign energy supplies. Today, oil is at nearly $50 per barrel, and we still have not passed reliability standards to address the electricity blackout that assaulted the Northeast and Midwest in 2003. Partisan politics have paralyzed this Congress into deadlock, and our Nation's energy has suffered the consequences. That is why I hope we can have a middle of the road bill. Rather than stay mired in the same tired gridlock of partisan politics, we must make the hard choice to move forward, even if it involves some hard choices.

As I noted yesterday at the hearing with Secretary Bodman, I am intrigued by the bipartisan National Commission on Energy Policy's report entitled "Ending the Energy Stalemate." Their report, released in December 2004, is the product of 16 members with diverse expertise and affiliations, representing business, government, academia, and the nonprofit community. The Commission's work is designed to ensure affordable and reliable supplies of energy, while responding to growing concerns about energy security. Not every member of the Commission supported every idea, but the ideas as a package won broad consensus over the group. With substantive debate over 3 years, the Commission attempted to break the deadlock by compromising on issues, including enhancing oil security, increasing energy efficiency, and developing energy technologies for the future. We can learn from their example. So therefore, I plan to introduce legislation implementing the National Commission on Energy Policy's recommendation, so if Congress can consider a more comprehensive and balanced approach to providing reliable, secure, affordable, and environmentally responsible supplies of energy for our growing economy. I don't personally agree with everything that the Commission came up with, but I do understand that in order to get a policy that makes sense for the United States, it involves compromise, it involves bipartisan, and it involves a middle of the road bill, and therefore, I would support the bill that the bipartisan Commission came up with, and I hope we can have active consideration of this bill in this committee and subcommittee.

I thank you, Mr. Chairman.

Mr. SHIMKUS. I thank the gentleman from New York. Now, the Chair recognizes the gentleman from Texas.

Mr. GONZALEZ. Thank you very much, Mr. Chairman, and I ll be brief. I guess it is just an observation, to commend the chai of the full committee and the ranking member for starting o the right foot, and I think the first thing to learn in any democratic legislative process, is the majority rules only when it respects and values the opinions of the minority, for the simple reason that we all know we kind of switch positions once in a while. One way, you are drinking the wine, and the next day, you are squeezing the grapes.

And process is important, and I think that is what this is all about. It will lead to a healthy debate, and sometimes, the debate really does take place in opening statements, as my colleague from New York observed. Sometimes, that is our only opportunity. So again, I think it is a positive step. Democrats and Republicans want an energy bill. We require and need an energy bill, and I look forward, as we develop this particular bill, and do what we have to do to get it passed.

I yield back the balance of my time.

Mr. SHIMKUS. The gentleman yields back his time. Now, the Chair recognizes the gentleman from Washington State, Mr. Inslee.

Mr. INSLEE. Thank you, Mr. Chair. I want to thank the majority for allowing me to participate. Just very briefly——

Mr. SHIMKUS. My pleasure.

Mr. INSLEE. Thank you. Mr. Engel referred to the Commission, and he will not be the only one looking for a more visionary policy here that really does move us forward on a basis that many people from many parts of the political spectrum can support. And I would just say that I would hope that our work this year would be guided by the spirit that was exhibited on May 9, 1961, when a young President went before the House and the Senate and said that America was capable of going to the Moon in 10 years, and bringing a person back safely.

And a lot of people think that that was sort of a crazy idea at the time. We hadn't even invented Tang at the moment, but here we understood the creative genius of Americans, and I think our committee ought to understand that as well, and embrace a technologically oriented bill that can get us out of the energy insecurity that we now have, the global warming problems that we have, and the fact that jobs are going to other countries, like Japan, Denmark, and Germany, when they ought to be right here.

So we will be introducing a bill called the New Apollo Energy Project, that will embrace many of these ideas, and look forward to putting them into the mix. Thank you, Mr. Chair.

Mr. SHIMKUS. The Chair thanks the gentleman from Washington State. Now, the Chair recognizes the gentleman from Texas, Mr. Green.

Mr. GREEN. Thank you, Mr. Chairman, and I would just like to place a full statement in the record, but I think for our guests, they—the concern is, is we want to have a real markup on the bill, and there has been discussion, although I think, I hope our full committee and the subcommittee will do a real markup on this bill, and that is why you have to listen to us, encourage that. And—but unlike a lot of my Democratic colleagues, I voted for H.R. 6, and the reason I want a markup is I want to improve on H.R. 6, because I think there are some things we have learned in the last 2 years that would expand our energy resources, particularly for the next 30 years. And I know I will work with my colleagues to plan for 50 years later, but I also want to make sure we can turn the lights on in the next 30 years.

So thank you, Mr. Chairman, and I look forward to the hearings.

Mr. SHIMKUS. I thank the gentleman from Texas. Now, the Chair recognizes the gentlewoman from California, Ms. Solis.

Ms. SOLIS. Thank you very much, Mr. Chairman. I am also pleased to be here to enter into this discussion, which I think is very important. I am very concerned that we have an opportunity in our subcommittee to begin the discussion regarding the leaking underground storage tank provisions. I am very concerned that— we have sent a letter over to Mr. Gillmor, and have not heard anything back yet regarding that. But it is a very important issue for many of us throughout the country. Every single one of us has an issue regarding the LUST program, and that should be a priority for us, so I would ask for unanimous consent that the letter that we have sent as a subcommittee be entered into the record.

Mr. SHIMKUS. Is there any objection? Hearing no objection, it is so ordered.

[The letter referred to follows:]

Congress of the United States
Washington, DC 20515

February 7, 2005

The Honorable Paul E. Gillmor
Chairman
Subcommittee on Environment
  and Hazardous Materials
2125 Rayburn House Office Building
Washington, D.C. 20515

Dear Chairman Gillmor:

As Members of the Subcommittee on Environment and Hazardous Materials, we look forward to serving on the Subcommittee and working with you on the important public health and environmental issues within the Subcommittee's jurisdiction. We believe it is important to provide all members the opportunity to address these issues, including issues in the context of the energy bill, at the subcommittee level.

As you know, the Leaking Underground Storage Tanks program (LUST), which is authorized by the Solid Waste Disposal Act, is one of the most important programs within the jurisdiction of the Subcommittee on Environment and Hazardous Materials. Every member has underground storage tanks in their district. The LUST program has not been amended or reauthorized by the Congress in nineteen years. We therefore request that any amendments to the LUST program be taken up and considered in the Subcommittee on Environment and Hazardous Materials. The Subcommittee's jurisdictional responsibility should not be circumvented by including LUST amendments in the energy bill without our consideration.

As you know the LUST amendments contained in Subtitle B, Section 1522 of the Energy Conference Report (H.R. 6) have never had the benefit of a legislative hearing or markup by the Subcommittee or the full Committee on Energy and Commerce. There has been no consideration by the House of Representatives of these provisions following regular order, nor were the LUST provisions amending the Solid Waste Disposal Act included in H.R. 1644 as passed by the full House in the 108th Congress. These provisions were inserted in the Conference Report (during a conference from which the Democrats were excluded).

Following regular order and providing Subcommittee consideration of this program would allow Members from both sides of the aisle to fulfill their responsibilities and allow consideration of amendments to improve and strengthen this national program that affects every member's district.

The Subcommittee should give consideration to amendments that would cure the "polluter pays" problem with the Energy Conference Report language that has been raised by the Bush Administration. Members should also have the opportunity to strengthen the enforcement and inspection regime and consider proposals that would help contain MTBE and petroleum contamination before it reaches the environment and drinking water supplies, and thus avoid costly cleanups.

In short, the Members of the Subcommittee on Environment and Hazardous Materials should be given the opportunity to perform their duties as members of the Subcommittee and full Committee. We strongly urge you to bring the LUST provisions contained in Subtitle B of Title XV the Energy Conference Report, and other issues from this subcommittee's jurisdiction which may be included in the energy bill, before the Subcommittee for consideration following regular order in a fair, democratic, and bipartisan process.

Sincerely,

Hilda L Solis
HILDA L. SOLIS

Frank Pallone, Jr.
FRANK PALLONE, JR.

Bart Stupak
BART STUPAK

Albert R. Wynn
ALBERT R. WYNN

Lois Capps
LOIS CAPPS

Mike Doyle
MIKE DOYLE

Tom Allen
TOM ALLEN

JAN SCHAKOWSKY

JAY INSLEE

GENE GREEN

Charles A. Gonzalez
CHARLES A. GONZALEZ

Tammy Baldwin
TAMMY BALDWIN

JOHN D. DINGELL

cc: The Honorable Joe Barton, Chairman
Committee on Energy and Commerce

Ms. SOLIS. We would like to hear more about what opportunities we have to address some of the quality of life issues that people in California, particularly in my district, are faced with, with respect to programs that are most notably going to be, I think, on the chopping block—weatherization, LIHEAP program, and different issue areas that many in my district, poor, low income, elderly, are faced with right now. Thank you.

[The prepared statement of Hon. Hilda L. Solis follows:]

PREPARED STATEMENT OF HON. HILDA L. SOLIS, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF CALIFORNIA

Chairman Hall and Ranking Member Boucher thank you for holding this hearing today. I am pleased to have the opportunity to join these discussions as a member of this subcommittee.

I would like to begin by submitting to the record a letter from my Subcommittee which requests an opportunity to consider and vote on language regarding the leaking underground storage tank provisions.

I have some very real concerns about this legislation. Energy policy should be an investment in our families, our children and our nation. But once again we are left discussing a proposal which threatens our health, our economic stability and our energy future.

I would like to focus on the issue of leaking underground storage tanks. I understand this issue does not fall under the jurisdiction of this subcommittee, but I am not convinced I will have another opportunity to address these provisions. 136,000 tanks are leaking as we speak—more than 36,000 in California, 75% of which risk MTBE impacting groundwater supplies. The EPA estimates 120,000 more tanks could leak over the next 10 years, contaminating 120,000 more communities—polluting the soil and water, harming health and incurring unnecessary costs.

Cleanup of MTBE alone—from leaking tanks—is estimated to cost at least $28 billion. Yet the language in this bill—language which was never considered in either the House or Senate last session—restricts the ability of our own Environmental Protection Agency to recover costs from polluters, fails to require additional safety measures for new tanks, and further delays inspections on these tanks. We owe it to our constituents and communities who deal with these leaking tanks to not shove random provisions into legislation.

I am also concerned about the failure of this legislation to deal with electricity reliability and consumer costs. In 2003, more than 20,000 families in California depended on public services to keep their power from being shut off. The Southern California Association of Governments recently gave quality of life in southern California a "D plus" partly because of bad air quality and the cost of energy. I have not been shown, however, how this legislation will do anything to help these families keep their lights on.

I would hope that our witnesses today, and any future witnesses, could provide us with new ideas to bring us to a better place than we are now. I hope this hearing is not the end of the discussion about a responsible long-term energy policy for America, but the beginning of a process that will involve opportunities to amend language to get the best possible policy.

Mr. SHIMKUS. The gentlewoman yields back her time. The Chair recognizes the gentleman from Oregon, Mr. Walden.

Mr. WALDEN. Thank you very much, Mr. Chairman. I appreciate your having this hearing today. I think it is extraordinarily important that we move forward on an energy bill.

This country needs an energy policy. As one of the vice chairs of the Renewable Energy Caucus in the Congress, the bipartisan organization, I am especially enthused about what we need to do to add to our renewable portfolio.

In my district, we are seeing the construction of some 400 megawatts of wind energy, which works well, as you shape the power curve with hydro, which is also one of America's most renewable energy sources, and in the Northwest, is certainly our bread and [illegible] ver. This legislation helps in those regards, as well as expanding efforts on solar and geothermal research and ,I am hopeful, biomass as well, to use the waste that comes out of forests, so we try to make them more healthy, to create a renewable market. And so that is certainly important, and while I realize we can't conserve our way out of the energy crisis we face, nor can we drill our way out of it, we have to have a balanced energy program for this country.

I am tired of paying $2 gas or $2.20 gas or whatever it is to fill my car, and I see what is happening, and the pressures on natural gas, and it is a supply issue, and I don't want to be held hostage for my energy and our country's energy to countries that aren't always exactly friendly toward us, and yet can pull our chain and our economy and cause severe problems.

We have had a lot of debates in this committee over the last 3 years that I have been on the panel, or 4 years, I guess, on energy policy. We need a comprehensive energy program. I commend the administration for the work they have done, and while I have some disagreements with them at the present time over power marketing authorities and some issues related to transmission and all, we need to move forward.

So, Mr. Chairman, thank you for holding this hearing, and I look forward to working with you on the issues that are of unique importance to the Northwest, as well as those that are critical to our country's future.

Mr. SHIMKUS. The gentleman yields back the time. The Chair recognizes the gentleman from Massachusetts, Mr. Markey.

Mr. MARKEY. Thank you, Mr. Chairman.

In the world of nuclear physics, there is a theory known as the Heisenberg Uncertainty Principle, which states that the more precisely the position is known, the less precisely the momentum is known.

Scientists tell me that this uncertainty principle has profound implications for understanding the behavior of subatomic particles, such as electrons. There appears to be a similar theory at work in the Congress these days, a theory known as the Republican Uncertainty Principle. Here, too, the more precisely a position is known, the less precisely we know what the momentum is. The Republican party's position on national energy policy are known with great precision, while we can never quite determine at any given time exactly what the momentum of their legislative efforts is, or whether there is any momentum at all.

For example, will the House wait to move an energy bill until the Senate acts? Maybe, maybe not. Is the committee only going to have one hearing on an energy bill? Maybe, maybe not. Are the members going to be able to deliver opening statements at any hearings or markups? Maybe, maybe not. Are we going to have a subcommittee markup? Maybe, maybe not. Are we going to have a full committee markup? Maybe, maybe not. Is the energy bill going to the House floor in February, or will we wait until March? Maybe, maybe not. Will the bill, when it goes to the floor, allow Democrats to make amendments on the floor? Maybe, maybe not. Will those Democrats from the Democratic side who are appointed to any future conference with the Senate on this bill, ll invited to participate in the meetings of the conferees? Maybe, maybe not.

Under the Republican Uncertainty Principle, you know exactly at all times what their positions are on this bill. You know that they want to drill in the Arctic Refuge. They want to weaken environmental laws in the name of energy production. They want to provide generous tax breaks and other favors to large oil, natural gas, coal, nuclear, and electric companies. They want energy consumers to pay higher rates and big energy companies to grow even bigger. All of this is certain. But you can never quite determine what the forward momentum of the bill really is, what their process is, or if there is any process at all.

That is the Republican Uncertainty Principle at work, and I welcome all of our witnesses back once again to this wonderful world of Republican political quantum mechanics. I look forward to your testimony this morning, but I am uncertain whether it will lead to the enactment of any legislation at all.

I yield back the balance, Mr. Chairman.

[The prepared statement of Hon. Edward J. Markey follows:]

PREPARED STATEMENT OF HON. EDWARD J. MARKEY, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF MASSACHUSETTS

Thank you, Mr. Chairman.

In the world of nuclear physics, there is a theory known as the Heisenberg Uncertainty Principle, which states that "the more precisely the position in known, the less precisely the momentum is known." Scientists tell me that this Uncertainty Principle has profound implications for understanding the behavior of subatomic particles, such as electrons.

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Will the House wait to move an energy bill until the Senate acts? Maybe. Maybe not.

Is the Committee only going to have one hearing on an energy bill? Maybe. Maybe not.

Are the Members going to be able to deliver opening statements any hearings or markups? Maybe. Maybe not.

Are we going to have a Subcommittee markup? Maybe. Maybe not.

Are we going to have a full Committee markup? Maybe. Maybe not.

Is the energy bill going to the House floor in February or will we wait until March? Maybe. Maybe not.

When the bill does go to the floor, are we going to be able to offer our amendments? Maybe. Maybe not.

Will those of us from the Democratic side who are appointed to any future conference with the Senate on this bill be invited to participate in the meetings of the conferees? Maybe. Maybe not.

Under the Republican Uncertainty Principle, you know exactly at all times what their positions are on this bill. You know that they want to drill in the Arctic Refuge, they want to weaken environmental laws in the name of energy production, they want to provide generous tax breaks and other favors to large oil, natural gas, coal, nuclear, and electric companies, they want energy consumers to pay higher rates and big energy companies to grow even bigger. All of this is very certain. But you can never quite determine what the forward momentum of their bill really is, what their process is, or if there is any process at all.

That's the Republican Uncertainty Principle at work, and I welcome all of our witnesses back once again to the wonderful world of Republican Political Quantum Mechanics. I look forward to hearing your testimony this morning, but I am uncertain whether it will lead to the enactment of any legislation.

Mr. SHIMKUS. The gentleman should be applauded for use of the time. I want to thank him for that, and the only certainty about this is that it makes more sense of why we are pushing for 1 minute opening statements.

Now, the Chair would like to recognize my colleague from Maine, Mr. Allen.

Mr. ALLEN. Thank you, Mr. Chairman, and I welcome the panelists. America needs energy legislation that will make our Nation more secure in the world, more competitive in global markets, and encourage economic growth here at home. We want an energy policy that reduces our dependence on foreign sources, increases conservation, encourages innovative use of renewable energy sources, and protects our environment. I don't think this energy legislation before us does that very well.

I have 3 concerns. First, we need to prioritize. It will take a substantial length of time to get a good bill through the Senate. I think it is time to break out the electricity reliability standards.

Second, this energy bill is already outdated. For example, if you take the hydro power title, which is designed to streamline dam relicensing by excluding States, Native American tribes, and other Federal agencies, from the appeals process, just yesterday, the Penobscot Indian tribe visited me to tell me about the Penobscot River Restoration Project in Maine. That project will remove two dams, alter a third to maintain power production near historic levels, and restore 500 miles of vital habitat to the Atlantic salmon, the American shad, and other native fish. In the words of Secretary of the Interior Gail Norton, this restoration is, and I quote, "a win for everybody involved." But the hydro power title, as it is written today, excludes the kind of public participation that we got in the course of this process. The Penobscot tribal chief told me yesterday in no uncertain terms that this project never could have happened if the hydro power title had been law.

Finally, I want to mention the provision known as bump up. I certainly hope the chairman will call witnesses so we can have a hearing on the impact of this provision. We have never had a legislative hearing on bump up. By the EPA's own analysis, 98 percent of the emissions leading to unhealthy air days in Maine originate outside of our State borders, so I care a lot about cities that have the same experience. But any bump up policy should be written to apply only where transport is the problem. If a city would be in attainment but for the pollution blowing in from other regions, then it is only fair that they not be punished with a bump up. However, the provision in this bill does not include a but for provision. It would prevent higher standards from applying to any area which has pollution blowing in from elsewhere, even if the local pollution is itself unhealthy. So for these and many other reasons, I view the energy bill conference report that passed the House in November 2003 as outdated, inadequate, and I believe that open discussion, debate, and opportunity for amendments is essential to improve this already outdated bill.

And I, Mr. Chairman, I yield back.

Mr. SHIMKUS. The gentleman yields back his time. Just referri
to the gentleman from Maine, I am familiar with t “
policy. We did have a hearing on June 22, 2003, on

provision, so does the gentleman from Idaho wish to make an opening statement?

[Additional statements received for the record follow:]

PREPARED STATEMENT OF HON. CHARLIE NORWOOD, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF GEORGIA

Thank you Mr. Chairman for holding this important hearing today.

I have said it before and will say it again. Energy is the lifeline of our economy and it is of paramount importance to our constituents back home that we once and for all pass into law a national energy policy. Electricity disruption and unreliability on a national scale could be catastrophic.

I have long been a supporter of nuclear energy. Nuclear power generation enjoys significant environmental advantages. It encompasses the largest source of emission-free generation of electricity in the United States.

The United States cannot afford to allow politics to continue to get in the way of sound science and good public policy. Mr. Chairman, for fear of sounding like a broken record, let me just reiterate my appreciation that you are holding this hearing today, and encourage my colleague to help me once and for all pass this very comprehensive national energy policy into law.

I yield back.

PREPARED STATEMENT OF HON. C.L. "BUTCH" OTTER, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF IDAHO

Thank you, Mr. Chairman, for holding this hearing today and for continuing the effort to pass an energy bill.

America needs a National Energy Policy like never before. U.S. energy consumption is at an all-time high and rising even while domestic energy production is declining. Our economy and security are at extreme risk. A comprehensive national energy policy is long overdue.

The Energy Policy Act considered by the 108th Congress contained provisions strengthening our national security by reducing dependence on foreign energy sources through increased domestic exploration and production. It promoted a clean environment by encouraging use of more renewable energy and alternative-fuel vehicles. It ensured a steady flow of electricity by requiring enforceable, mandatory electric reliability standards. And it provided private-sector incentives for improving efficiency standards on electric products, as well as improved regulation of nuclear and hydroelectric power.

I am hopeful that we can soon move forward with similar legislation for the 109th Congress, and that the Senate can find the votes to bring our nation's outdated energy policies into the 21st century. The result will ensure all Americans have access to reliable, affordable and cleaner energy for decades to come. A more independent America with greater economic security will encourage investment and creation of jobs.

I look forward to hearing from our witnesses.

PREPARED STATEMENT OF HON. MICHAEL C. BURGESS, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF TEXAS

Mr. Chairman, thank you for holding hearings on this important topic. Over the past four years, Congress has attempted to craft a comprehensive national energy policy and it is my hope that the 109th Congress will achieve this important goal. In fact, I believe that this is one of the most important things that we can do to protect the American public and our economy.

Access to affordable energy is extremely important to our economy because high-energy prices force businesses to lay off workers. Small business owners around the country have said that they are afraid that rising future energy costs threaten their ability to stay in business. Fearful business owners will not hire new workers and create new jobs. A comprehensive energy policy will help contain rising energy prices and encourage businesses to hire more workers.

This week we will discuss the electricity title of the energy bill. I want to touch on this very briefly because electricity plays such an important part in our society. We rely on electricity to power our homes, hospitals, schools, businesses, and even our government institutions.

In Texas, we are fortunate that the grid operation and reliability is managed by ERCOT, the Electricity Reliability Council of Texas. ERCOT has put tough, enforceable, reliability standards in place, which has ensured that Texans have ample access to electricity. As Congress considers a national energy policy, I believe that electricity reliability standards are an extremely important component of a comprehensive measure.

Panelists testifying next week will discuss, among other things, issues involving oil, gas, and renewable energy, and I look forward to their testimony.

As we are all aware, today the United States imports nearly 60 percent of its oil and this number is expected to increase to 75 percent by 2010. Most of this oil comes from the Middle East and politically unstable nations such as Algeria, Nigeria and Venezuela. I believe it is a matter of national security for the United States to achieve self-sufficiency when it comes to our energy needs.

That is why I support energy exploration in Alaska's Arctic National Wildlife Reserve (ANWR). I believe that is prudent, in today's geopolitical climate, to explore domestic energy resources like those in ANWR and other federal lands. New technology has drastically shrunk the "footprint" needed for exploration and drilling, which reduces the impact on the environment and wildlife. While I believe that we must seek to minimize the impact of these activities on the environment, I do not believe that our national security should be sacrificed.

In recent years, we have turned to natural gas as a clean burning fuel to help diversify our fuel mix and reduce air pollution. To keep pace with demand, we must ensure that we have ample supply to meet our future needs. The Barnett Shale, a major natural gas shale formation located in my district in North Texas, is currently a major source of natural gas and promises to help assuage future energy needs. I believe that comprehensive energy policy should seek to encourage the development and production of non-conventional sources, like the Barnett Shale.

In addition to encouraging conventional energy production, I believe that it is important that a comprehensive energy policy encourages renewable energy development and energy conservation.

I strongly support the use of renewable energy, like wind, solar, hydrogen, biomass, etc, when it is practicable. The State of Texas' renewable energy mandate is one of the most aggressive in the nation, requiring 3% of electricity generation to come from renewable resources by 2009. While a number of the renewable provisions from the Conference Report on H.R. 6 from the 108th Congress were signed into law by the President as part of the American Jobs Creation Act in October 2004, there are still a number of important renewable energy provisions contained in this year's energy bill.

In 2003, President Bush announced his Hydrogen and FreedomCAR initiatives during his State of the Union Address. I believe that investment in alternative energy sources, like hydrogen, are an important part of comprehensive energy policy. While I am new to the Energy and Commerce Committee this Congress, I am familiar with the President's Hydrogen Initiative due to my service on the House Science Committee during the 108th Congress. There are many benefits to developing hydrogen fuel cell technology, including a cleaner environment, the possibility that research can spur further technological innovation, and especially greater energy independence.

In closing, Mr. Chairman, I would like to reiterate my support for a comprehensive national energy policy and thank you again for this series of hearings.

Mr. SHIMKUS. Seeing no other members. I would like to welcome our panelists.

First, a brief introduction. Mr. David Garman, who is Assistant Secretary, and confirmed unanimously by the U.S. Senate on May 25, 2001. He previously served in a variety of positions on the staff of two U.S. Senators, and two Senate committees during a career spanning 21 years. Most recently, Mr. Garman served as chief of staff to some Senator from Alaska, who is now Governor, [illegible]o is in the audience, Senator Frank Murkowski. And Mr. Garn[illegible] also served on the professional staff of the Senate E[illegible]gy ar[illegible]
Resources Committee, and on the Senate Select [illegible]
telligence. Mr. Garman also served as U.S. Sena[illegible]
tually all the major negotiations under the Uni[illegible]
work Convention on Climate Change from 1[illegible]

Also joining him is Cynthia Marlette. And Pat Wood, Chairman of FERC named Cynthia Marlette as general counsel. Ms. Marlette, who joined the Commission in 1979, has served as deputy counsel. Earlier, she was associate general counsel for hydroelectric and electric.

Also joining us is Mr. Luis Reyes. Mr. Reyes joined the NRC in February 1978 as a reactor inspector in the Region 3 office located in Glen Ellen, Illinois. That is in Illinois, and welcome. He held progressively more responsible position, in Region 3, and subsequently, in the Region 2 office, located in Atlanta, Georgia. He served as section chief in Region 3 from August 2001 through February 2002. Mr. Reyes completed a special assignment as a special assistant to the Under Secretary Office of Energy, Science, and Environment, Department of Energy. In May 2004, he was selected to his current position as executive director for operations.

Your full statements are already submitted for the record, and we will be generous with time, but we have a long day ahead of us, and you are recognized for 5 minutes for an opening statement.

STATEMENTS OF HON. DAVID GARMAN, ASSISTANT SECRETARY FOR ENERGY EFFICIENCY AND RENEWABLE ENERGY, U.S. DEPARTMENT OF ENERGY; CYNTHIA A. MARLETTE, GENERAL COUNSEL, FEDERAL ENERGY REGULATORY COMMISSION; AND LUIS A. REYES, EXECUTIVE DIRECTOR FOR OPERATIONS, NUCLEAR REGULATORY COMMISSION

Mr. GARMAN. Thank you, Mr. Chairman, and members of the subcommittee. I will be very brief, in order to allow more time for questions and answers, and out of respect for the witnesses waiting to appear.

As you mentioned, I am the Assistant Secretary for Energy Efficiency and Renewable Energy. The Department is currently without a Deputy Secretary or an Under Secretary, but I will nevertheless attempt to be responsive to the broader energy policy questions outside my immediate area of responsibility.

A comprehensive energy policy should address 6 general objectives. First, we should encourage conservation of our energy resources by promoting energy efficiency in the production and use of energy.

Second, we must increase our overall energy supply, with an emphasis on domestic supply. Too often, the energy debate pits energy conservation and efficiency against the need for increased supply. The fact is, we need both.

Third, to ensure energy security, we must maintain a diversity of fuels from a multiplicity of sources. There is not, and will not be, a silver bullet that meets our energy needs, so we must look at oil, gas, coal, solar, wind, hydro, nuclear, biomass, just as we should look to better exploit hydrogen as well as electricity as energy carriers for the future.

Fourth, we must encourage the modernization of our energy infrastructure, so as to more efficiently and reliably deliver energy from its source to the consumer.

Fifth, these energy production, consumption, and conservation goals must be accomplished while building on our successful record of environmental protection.

Sixth, realizing our energy challenges will extend beyond the next 2 decades, we should also provide a vision of the future in which solutions to these energy challenges will lead to a transformed energy future. This is why provisions in the legislation related to hydrogen, next generation nuclear, fuel cell vehicles, carbon dioxide sequestration, and other breakthrough technologies are so important. These long-term technologies may not all come into commercial viability in the next week, month, or year, but it is very important that we work on them now.

There are literally hundreds of individual provisions in this bill. Candidly, there are provisions that we like, and provisions that we are less enthusiastic about. For that reason, I would prefer not to make specific comments on individual provisions beyond those prior statements of the administration and the policies articulated in the President's 2006 budget, because we recognize that a bill such as this is inevitably a compromise, and I wouldn't want any negative comment that I might make about a specific single provision during the course of this hearing to be taken as contrary to the spirit of achieving an eventual consensus through a process of thoughtful compromise.

As Secretary Bodman assured you yesterday in the full committee, we will actively work with you and your staff to achieve passage of an energy bill, and stand ready to assist you in any way possible.

Thank you, Mr. Chairman.

[The prepared statement of Hon. David Garman follows:]

PREPARED STATEMENT OF HON. DAVID GARMAN, ASSISTANT SECRETARY FOR ENERGY EFFICIENCY AND RENEWABLE ENERGY, U.S. DEPARTMENT OF ENERGY

I am pleased to appear today before the Subcommittee as it considers comprehensive and balanced energy legislation. As you know, President Bush's National Energy Policy (NEP), issued in May 2001, contained 106 energy policy recommendations to modernize America's energy production and distribution systems, promote energy efficiency and conservation, strengthen our economy and create new jobs, and reduce our dependence on foreign sources of energy.

While the Administration has implemented nearly all of the NEP recommendations that could be addressed through administrative action, some of the most significant NEP recommendations require Congressional action. Despite the serious and significant efforts of many on this Committee and elsewhere in the Congress, the passage of energy legislation has thus far eluded us. The President, in his 2005 State of the Union Address, repeated his call for Congress to pass energy legislation, and we are pleased to see the Subcommittee moving ahead quickly.

General Principles

The Administration believes that a comprehensive energy policy must address six general objectives to ensure the Nation's continued growth and prosperity:

- First, we should encourage conservation of our energy resources by promoting greater energy efficiency in the production and use of energy.
- Second, we must increase our overall energy supply, with an emphasis on domestic supply. Too often, the energy debate pits energy conservation and efficiency against the need for increased supply. The fact is, we need both.
- Third, to ensure energy security, we must maintain a diversity of [illegible] multiplicity of sources. There is not, and will not be, a “silver bullet [illegible] our energy needs.
- Fourth, we must encourage the modernizatio n of our [illegible] to more efficiently and reliably deliver energy from [illegible]

- Fifth, these energy production, consumption and conservation goals must be accomplished while building on our successful record of environmentalprotection.
- Sixth, realizing that our energy challenges will extend beyond the next two decades, we should also provide a vision of the future in which solutions to these challenges will transform our energy future.

With those general principles in mind, let me now outline a few of the specific provisions that energy legislation should contain.

Energy Efficiency

To promote energy efficiency and the conservation of our energy resources, we support many of the provisions in the energy efficiency titles of the bills considered by both the House and the Senate during the last Congress. For example, we share the view that the Federal Government, the largest single user of energy in the nation, should "lead by example" in using energy more efficiently, and the Federal Government should be encouraged to do so. Energy efficiency programs such as the Low Income Weatherization Assistance Program, the Energy Star program, and the appliance efficiency standards program have demonstrated their value, and should be continued and, where appropriate and cost-effective, expanded. In addition, the President's 2006 Budget includes $4.8 billion over 10 years in tax incentives for renewable energy and energy efficient technologies, such as hybrid and fuel cell vehicles.

Energy Supply from a Variety of Sources

To promote increased energy supply, we believe a multifaceted approach is warranted. For example, we support provisions to open the coastal plain of the Arctic National Wildlife Refuge to exploration and, if oil is determined to be present, environmentally responsible development and production. Had we opened the coastal plain to development nearly ten years ago as Congress had sought, it is conceivable that new Alaskan oil reserves could be moving into the market today.

We also support the increased production of renewable energy, and were gratified to see that Congress last year provided an extension of the renewable energy production tax credit as the President had sought. We do not, however, support efforts to impose a national "one size fits all" renewable portfolio standard. We believe individual states are best suited to craft an RPS that meets their needs taking into account the renewable energy resource available in that state, and at least 18 states have already adopted an RPS in some form.

The Administration does support a renewable fuels standard to increase the use of clean, domestically-produced renewable fuels such as ethanol and biodiesel to reduce dependence on imported oil.

We also support the increased production of emission-free nuclear power, and would welcome many of the provisions in the legislation considered last Congress designed to revitalize nuclear power production. These include the provisions that would reauthorize the Price Anderson Act permanently or at least long-term, and clarify the tax status of nuclear decommissioning funds.

Upgraded Energy Infrastructure

Investment in our electricity grid has been hampered by, among other things, uncertainty in the regulatory realm. To provide the greater regulatory certainty that is needed to generate additional investment, we support provisions to provide open access to the transmission grid, repeal the Public Utility Holding Company Act and reform PURPA.

We also support mandatory reliability standards to reduce the likelihood of widespread power outages such as the one we experienced two years ago. My colleague from the Federal Energy Regulatory Commission will elaborate on these proposals in greater detail, but let me stress the importance to grid reliability of continued research and development by the Department of Energy and its research partners in the labs, universities, and the private sector on new technologies, such as superconductivity, grid management and visualization tools, and distributed generation, just to name a few.

Environmental Protection and a Transformed Energy Future

President Bush believes that we can continue to improve the environment while expanding our energy use through the development and adoption of new technology. Thus, we strongly support research and development, demonstration and deployment of advanced clean energy technologies, such as hydrogen, clean coal, and fusion energy, in a manner consistent with the President's FY 2006 Budget proposals.

The President's FY 2006 Budget includes $260 million for the Hydrogen Fuel Initiative to develop the technologies to produce, store, and distribute hydrogen for use in fuel-cell vehicles, electricity generation, and other applications. With complementary work ongoing under the FreedomCAR partnership, these efforts keep the Hydrogen Fuel Initiative on track for a 2015 commercialization decision by industry that could revolutionize personal transportation, provide consumers better performance and more choice, and significantly reduce environmental and energy security concerns.

The President's 2006 Budget also provides $286 million for the President's Coal Research Initiative to improve the environmental performance of coal-fired power plants by reducing emissions and improving efficiency. This includes funding to continue development of the FutureGen coal-fueled, near zero-emissions electricity and hydrogen generation project announced by the President in February 2003. FutureGen involves an industry and international partnership that will work cooperatively on research, development, and deployment of technologies that will dramatically reduce air pollution from coal-fueled electricity generation plants, generate hydrogen, and capture and store greenhouse gas emissions.

In January 2003, President Bush committed the United States to participate in negotiations on the largest and most technologically sophisticated energy research project in the world—the International Thermonuclear Experimental Reactor (ITER). The United States and its international partners—the European Union, Japan, Russia, China, and South Korea—continue to work toward a consensus decision on the site for ITER early in 2005. If successful, this cost-shared $5 billion research project will advance progress towards developing fusion's potential as a commercially viable and clean source of energy near the middle of this century. Assuming that international partners reach a timely site decision, the $50 million provided in the FY 2006 Budget funds the first year of equipment fabrication for the United States' in-kind contributions to this important partnership.

Conclusion

In his 2005 State of the Union Address, President Bush once again highlighted the need for reliable, affordable, and clean supplies of energy to keep our economy growing and to create new jobs. As the President said, "(f)our years of debate is enough: I urge Congress to pass legislation that makes America more secure and less dependent on foreign energy."

Mr. Chairman, you have our commitment to work with you to enact energy legislation this year that is consistent with the President's policy.

I appreciate the opportunity to testify before you today, and I will be glad to answer any questions the Committee might have.

Mr. HALL. Ms. Marlette, general counsel of FERC. We recognize you for as much time as you consume, and we thank you.

STATEMENT OF CYNTHIA A. MARLETTE

Ms. MARLETTE. Thank you, Mr. Chairman and members of the subcommittee. I appear here today as a staff witness, but Chairman Wood has authorized me to say that he fully supports the recommendations I make in my testimony.

The Congress needs to enact comprehensive legislation on energy, including amendments to the Federal Power Act and the Natural Gas Act, amendments which will help our Commission better fulfill its responsibilities under those statutes. Any legislation considered by the Congress should do four things with respect to the matters within FERC's jurisdiction.

First, it should support the competitive wholesale electric markets that were envisioned by the Energy Policy Act of 1992.

Second, it should help ensure the development of electric and natural gas infrastructure to meet our Nation's energy needs.

Third, it should provide a system of mandatory en[illegible] rules to govern the reliability of the Nation's electric t[illegible]
and fourth, it should provide additional regulat[illegible]
deter market power abuse in electric and natu[illegible]
kets.

I recommend modifications to four ex[illegible]
cussion draft. First is the provision [illegible]

for mandatory enforceable electric reliability rules, subject to Federal oversight. This type of provision is long overdue, particularly in light of the August 2003 blackout, in which some 50 million people lost electricity. However, we have one recommendation for changes to the provision. We believe Congress could improve the provision by giving the electricity reliability organization a role in directing utilities to build transmission facilities that are needed for reliability purposes in areas of the country where a formal Commission-recognized regional planning process does not exist. This authority should be subject to siting review by States or other governmental entities with jurisdiction, and also subject to the Federal backstop siting provision that is contained in the discussion draft.

Second, with respect to the provisions in the discussion draft which give the Commission increased criminal and civil penalty authority under the Power Act and the Gas Act, these are extremely helpful to the Commission's enforcement program and protection of customers. However, I recommend that the Commission's civil penalty authority be further strengthened to apply to any violation of part III of the Power Act, as well as part II. I further recommend that the Congress give the Commission civil penalty authority for violations of the Natural Gas Act. Currently, the Commission has no civil penalty authority at all under that Act.

Third, with respect to the sections that address electric and gas price transparency, I recommend that the Congress harmonize those two provisions, and use the template of the electric transparency provision for both. That template, however, should be modified to permit, but not require, that the Commission establish an electronic price reporting system to give it the ability to obtain price and availability information.

The Commission should also have the authority under that provision to obtain information from all market participants. It should also be able to rely on a nongovernmental entity to compile this information and make it publicly available if appropriate. And finally, we believe that any language on transparency should not inadvertently interfere with the Commission's existing investigatory authority to obtain information.

In addition to these recommendations for changes to the existing provisions, I recommend that Congress consider 3 new provisions, which would do the following. They would clarify the Commission's authority under section 3 of the Natural Gas Act; provide the Commission with emergency authority under the Federal Power Act to temporarily suspend or change filed tariff provisions if necessary to protect reliability, or to ensure that there is not market power abuse; and I also recommend that the Commission be given authority to require multi-state electric public utilities to use economic dispatch, if it would reduce the costs incurred in supplying power to the utilities' customers.

I would be happy to provide the committee with specific legislative language for each of these recommendations. Thank you again for the opportunity to be here. Our agency stands ready to answer questions, and to work with the committee, and the subcommittee, as you consider legislation.

[The prepared statement of Cynthia A. Marlette follows:]

PREPARED STATEMENT OF CYNTHIA A. MARLETTE, GENERAL COUNSEL, FEDERAL ENERGY REGULATORY COMMISSION

Mr. Chairman and Members of the Subcommittee: Good morning. My name is Cynthia A. Marlette, and I am General Counsel of the Federal Energy Regulatory Commission (FERC or Commission). Thank you for the invitation to appear here today to testify on the provisions of the Energy Policy Act of 2005. My testimony will focus on issues affecting the responsibilities of the FERC, including wholesale electricity and natural gas markets and the siting of liquefied natural gas (LNG) facilities. I appear today as a Commission staff witness and do not speak on behalf of any Commissioner.

The Congress needs to enact comprehensive energy legislation, including amendments to the Federal Power Act (FPA) and the Natural Gas Act (NGA). Since the Congress last enacted major energy legislation in 1992, significant changes have occurred in energy markets and in the electric industry in particular. The Commission, state commissioners and the industries we regulate continue to face new challenges following the 2000-01 energy crisis in California and the Western United States, the collapse of Enron and the financial problems facing other utilities as a result of that crisis, and the August 2003 blackout that left some 50 million people with no electricity. These events and others underscore the need for Federal legislation. Congress should enact legislation to support the competitive wholesale electric markets envisioned in the Energy Policy Act of 1992, help ensure the development of electric and natural gas infrastructure, provide enforceable oversight of the electric grid's reliability, and provide additional regulatory tools to deter market power abuse.

The FERC-related provisions of the conference report on H.R. 6 address the most pressing issues in the areas regulated by the FERC. The discussion below updates the Subcommittee on progress made by the Commission in the key FPA and NGA areas addressed by the conference report on H.R. 6, recommends changes to certain provisions in the conference report on H.R. 6, and recommends the addition of some new provisions. Since the Energy Policy Act of 2005 had not been introduced at the time this testimony was prepared and may contain provisions that differ from those in the conference report on H.R. 6, this testimony does not include specific recommended legislative text. I would be happy to provide such text once Commission staff has reviewed any newly introduced bill.

Key Provisions in the Conference Report on H.R. 6

The provisions in the conference report on H.R. 6 address the major areas in which FPA and NGA legislation is needed. My testimony identifies possible improvements to the bill.

Reliability

In the past year, in the wake of the Task Force Report on the Blackout of August 2003, the Commission has taken certain actions to enhance the reliability of the electricity grid. On April 19, 2004, the Commission issued a policy statement clarifying that it interprets the term "Good Utility Practice"—which is a requirement currently contained in all public utility open access transmission tariffs—to include compliance with North American Electric Reliability Council (NERC) reliability standards or more stringent regional reliability council standards. Accordingly, public utilities that own, control or operate transmission systems subject to FERC jurisdiction are required to operate their systems in compliance with NERC reliability standards.

In addition, concurrent with the issuance of the policy statement, the Commission issued an order directing transmission providers to report on their vegetation management practices related to certain overhead interstate transmission lines. The Commission later submitted a report to the Congress summarizing the responses it received from transmission owners, and making certain recommendations on vegetation management practices.

Most recently, in December 2004, the Commission directed certain control area operators and transmission providers to complete a survey on their operator training practices to help determine best operator training practices for the industry. Responses were due on January 31, 2005 and the Commission will report the results to the Congress.

These actions, however, clearly are not a substitute for much-needed reliability legislation. Federal legislation is necessary to provide a clear, e [illegible] able fr [illegible] work for reliability rules. Specifically, a system of [illegible] datory [illegible] penalties for violations of these rules, is needed t [illegible] nation's transmission system. The reliability provisio [illegible] H.R. 6 generally are adequate. However, the C ing the reliability provisions by giving the Electricity Reliability Organization (ERO) a role in directing utilities to build transmission facilities needed for reliability purposes. Specifically, the ERO should be allowed to direct the expansion of transmission facilities for reliability purposes in areas of the country where a formal, Commission-recognized, regional planning process does not exist. Any expansion directed by the ERO should be subject to siting authorization by states or other governmental entities with jurisdiction. If such governmental entities do not have authority to approve siting or do not act timely on a request for siting, the matter should be subject to the Federal backstop siting procedures contained in section 1221 of the conference report on H.R. 6.

Federal Backstop Electric Transmission Siting Authority

Unlike its authority under the NGA, the Commission currently has no authority to site electric transmission. The conference report on H.R. 6 would provide the Commission with backstop interstate transmission siting authority for certain backbone electric transmission corridors identified by the Secretary of Energy, in the event a state or local entity does not have authority to act or does not act in a timely manner. These provisions would help facilitate the development of important transmission expansions and thus enhance the reliability of the grid, reduce the total cost to customers, or both.

Criminal and Civil Penalties under the FPA and the NGA

The conference report on H.R. 6 would provide the Commission with greater penalty authority under the FPA and the NGA. Specifically, sections 1283 and 332 of the conference report on H.R. 6 propose to increase criminal penalties for violations of the NGA and the FPA and to expand civil penalty authority for violations of Part II of the FPA.

Expanded criminal and civil penalty authority remains a high priority of the Commission. The Commission's current civil penalty authority is extremely limited; for example, civil penalties are available only in very limited circumstances under Part II of the FPA and not at all for violations of the NGA. For violations not subject to civil penalties, the only available civil remedies are refunds, the disgorgement of unjust profits, or revocation of market-based rate authority. While such remedies are significant, they do not serve the same deterrent function that civil penalties could.

Section 1283 of the conference report on H.R. 6 addresses the major gaps under the FPA in civil penalty authority by increasing civil penalty amounts and applying civil penalties to any violation of Part II of the FPA. However, I recommend that this provision be modified to also apply to any violation of Part III of the FPA. In addition, a similar provision should be enacted to provide for civil penalties for any violation of the NGA.

Price Transparency in Natural Gas and Electric Markets

The Commission has made significant progress on price discovery and price transparency issues, and effective monitoring of natural gas and electric markets. Technical conferences and workshops in the spring of 2003 led the Commission to issue a policy statement on natural gas and electric price indices on July 24, 2003. The Commission then conducted two broad surveys of industry price reporting practices in September 2003 and March 2004; held a public workshop on liquidity issues in November 2003; issued market behavior rules for both electric and natural gas market-based rate jurisdictional sellers in November 2003; issued a comprehensive staff report on price formation issues in May 2004; held a further technical conference on progress to date and the use of price indices in jurisdictional tariffs in June 2004; and, most recently, issued an order on November 19, 2004, outlining plans for further monitoring and adopting requirements for price indices used in jurisdictional tariffs.

With respect to jurisdictional electric sellers, the Commission in April 2002 also finalized new requirements for the electronic filing of quarterly transactions reports. These reports summarize the contractual terms and conditions in public utilities' agreements for all jurisdictional services (including market-based power sales, cost-based power sales, and transmission service) and transaction information for short-term and long-term power sales during the most recent calendar quarter.

Legislation on price transparency would reinforce and help ensure continued progress on these issues. It would be helpful if the Congress clarified the Commission's authority to require the development of an electronic price reporting system, and if the Congress gave the Commission the ability to require all electric market participants to participate in such a reporting system. If the quality of price discovery continues to improve, continued monitoring may be sufficient, and continued reliance on commercial vendors would be appropriate. If not, the Commission should have the tools to step in and require market participants to provide price information. The Congress also should consider allowing the Commission to rely on a non-governmental entity to compile this information and make it publicly available.

The general framework of section 1281 of the conference report on H.R. 6, which applies to electric market transparency, should also be used for gas transparency legislation. However, several modifications are recommended. First, the provisions should be drafted to permit, but not require, the Commission to adopt an electronic reporting system. Second, the Commission should be able to obtain information from all market participants, subject to appropriate confidentiality protections. While the electric provision permits the Commission to collect market information from all market participants, the gas provision does not. The Commission cannot adequately monitor markets if it is able to obtain information from only a subset of market participants. Third, the Commission should be able to rely on external commercial vendors to collect and publish information, if appropriate. Finally, the savings clause referring to the CFTC should be modified so that it does not inadvertently limit the FERC's existing information collection authority in the context of specific investigations.

Repeal of PUHCA

The conference report on H.R. 6 would repeal the Public Utility Holding Company Act of 1935 (PUHCA), but give the Commission and State regulatory commissions broader access to the books and records of holding companies and their affiliates. This is appropriate. PUHCA was enacted primarily to undo the harms caused by certain holding company structures that no longer exist. In the almost 70 years since PUHCA was enacted, utility regulation has increased substantially under the FPA (including more rigorous oversight of corporate restructurings such as electric utility mergers), federal securities law and state laws, all of which ensure that customers are protected. The existing integration requirement of PUHCA may actually encourage market structures that impede competition. In particular, under PUHCA acquisitions by registered holding companies generally must tend toward the development of an "integrated public-utility system." To meet this requirement, the holding company's system must be "physically interconnected or capable of physical interconnection" and "confined in its operations to a single area or region." This requirement tends to create greater geographic concentrations of generation ownership, which may increase market power. Further, PUHCA may impede investment in transmission companies in more than one region because it could subject any owner of ten percent or more of a company to becoming a holding company and possibly being required to register under PUHCA.

Repeal of PURPA "Must Purchase" Obligation

The Congress should repeal the Public Utility Regulatory Policies Act of 1978 (PURPA) must purchase obligation where there is a competitive market, but "grandfather" existing PURPA contracts. Section 1253 of the conference report on H.R. 6 limits prospective PURPA repeal to those states where all generation entities have the ability to sell their output to the widest possible range of customers. The provision in the conference report on H.R. 6 on PURPA is adequate.

Electric Utility Mergers

Section 1292 of the conference report on H.R. 6 would amend section 203 of the FPA to increase to over $10 million the value of Commission-jurisdictional facilities that would trigger the need for Commission approval of jurisdictional mergers, dispositions or acquisitions of securities. The current value is $50,000. It would also amend section 203 to require Commission approval of mergers of holding companies that have public utilities in their holding company systems. Further, it would add specific public interest criteria that the Commission must consider in reviewing section 203 transactions, including whether the proposed transaction would protect consumer interests, would be consistent with competitive wholesale markets, or would impair the financial integrity of any public utility that is a party to the transaction. These criteria are generally consistent with the criteria applied by the Commission under existing law to determine whether a transaction is consistent with the public interest.

Regional Transmission Organizations

Major portions of the country are now served by Regional Transmission Organizations (RTOs) or Independent System Operators (ISOs). The areas covered are the Northeast (ISO New England and the New York Independent System Operator), the mid-Atlantic (PJM Interconnection), the Midwest (Midwest Independent Transmission System Operator (MISO) and Southwest Power Pool (SPP)), Cal (California Independent System Operator) and most of the state of Texas

This means that electricity customers over a large part of the nation now enjoy the benefits of coordinated regional planning, operation and reliability oversight as well as independent grid decision-making that RTOs and ISOs deliver.

Of recent note are new RTO developments in the Southwest. As a result of efforts in the SPP region, the Commission was able to issue a series of orders resulting in SPP becoming one of four RTOs in the nation. Many of the state commissions in the SPP region (Arkansas, Kansas, Missouri, Oklahoma, and Texas) formed a regional state committee that is already addressing such key issues as transmission cost responsibility and transmission pricing. The Commission has also approved a joint operating agreement between SPP and MISO that will facilitate trade and reliability oversight between these regions and we have staffed a regional office in Little Rock, Arkansas, to support the SPP and the regional state committee in RTO development and operations.

The Commission also has worked to improve the design and operations of the existing regional transmission organizations. For example, it has devoted extensive resources to working with the MISO staff, participants, and the Organization of Midwest ISO States (the state regulators in the region) to design and establish a single regional dispatch and organized electricity market that will stretch from Ohio to Manitoba to Missouri. This effort has required extensive discussions among market participants and a number of Commission orders addressing regional approaches to a host of market design and operational factors, including protection of existing transmission rights and market monitoring and mitigation. Through these efforts, the MISO market is now scheduled to begin operation on April 1, 2005. The Commission has also approved a joint operating agreement between MISO and PJM that will facilitate trade and reliability oversight between these regions.

The Commission's policy is to encourage membership in RTOs, since RTOs enhance the reliability and economic efficiencies of a region's transmission grid and power supply. The conference report on H.R. 6 endorses voluntary participation in RTOs in section 1232's "Sense of the Congress" statement. This provision is beneficial in light of the major benefits that RTOs can bring to electric markets. In addition, increased membership in FERC-approved RTOs or ISOs by governmental transmitting utilities would provide even further benefits to electric customers, and section 1232 of the conference report on H.R. 6 would facilitate this result for federal power marketing agencies and the Tennessee Valley Authority.

Electric Transmission Rate Incentives

Electric transmission rate incentives can help address the need for transmission in areas where the system has not kept pace with market needs, can increase reliability, and can foster new entry by additional generation options.

The Commission has addressed the issue of transmission rate incentives in a number of recent orders. In 2003, the Commission issued a proposed policy statement to provide rate incentives to transmission owners to promote transmission independence and to provide for efficient expansion of the transmission grid. Specifically, the proposed policy statement would allow a higher return on equity when a utility participates in an RTO or independent transmission company (ITC), sells its RTO-operated transmission assets to an independent company, or pursues additional measures that promote efficient operation and expansion of the transmission grid. The Commission is evaluating the comments received in response to this proposal.

On a case-by-case basis, the Commission also has authorized transmission rate incentives for a number of entities that have proposed to expand transmission infrastructure or taken steps to make their transmission facilities independent from activities of other market participants, such as becoming members of RTOs or forming ITCs. For example, in 2002, it allowed a 50 basis point adder for utilities joining the Midwest ISO, and in 2004, it permitted an independent transmission company alternative incentives for building of transmission infrastructure.

The Commission currently has adequate authority to provide transmission incentives. However, action by the Congress on transmission incentives could provide greater certainty to investors and thus encourage quicker, appropriate investments in grid improvements. The provisions in the conference report on H.R. 6 would lay to rest any potential legal arguments that the Commission lacks authority to provide transmission rate incentives.

Sanctity of Contracts

The enactment of section 1286 in the conference report on H.R. 6 would help resolve disputes about the standard of review to be applied to contracts that do not clearly provide the standard of review. Under the "public interest" standard of review, as opposed to the "just and reasonable" standard of review, a contract may be modified only if it would be contrary to the public interest to allow the contract to remain, e.g., where the financial integrity of the selling utility might be impaired, the rate is unduly discriminatory, or the rate would cast an excessive burden on other customers. Section 1286 of the conference report on H.R. 6 addresses the sanctity of contracts and requires a "public interest" standard of review for new contracts unless a contract expressly provides otherwise. This section would clarify an unclear body of judicial and administrative precedent in an appropriate way that ensures greater preservation of the terms of contracts.

Alaska Natural Gas Pipeline

Last year, the Congress enacted the Alaska Natural Gas Pipeline Act, which clarified issues regarding proposed Alaska transportation projects, and established a framework for the Commission's consideration of applications for such projects. Emergency Supplemental Appropriations for Hurricane Disasters Assistance Act, 2005, Pub. L. No. 108-324, ch. 12, sec. 1201, § 101-116, 118 Stat. 1220, 1255-67 (2005). That Act and the pre-existing NGA and Alaska Natural Gas Transportation Act provide the Commission with sufficient authority to address such matters.

An Alaska natural gas pipeline is one of the Commission's highest regulatory priorities. As required by the Alaska Natural Gas Pipeline Act, the Commission is in the process of drafting regulations governing open seasons for the allocation of capacity on Alaska pipeline projects, and is scheduled to issue those regulations this week. The Commission stands ready to work with potential pipeline proponents, shippers, the State of Alaska, other government agencies, Canada and the public to do everything possible to ensure prompt consideration of proposals to move Alaska natural gas to markets in the lower 48 states.

Alternative Conditions and Fishways for Hydroelectric Projects

Section 231 of the conference report on H.R. 6 would require federal resource agencies that have authority under the FPA to prescribe fishways and establish mandatory conditions in hydroelectric licenses to consider alternative prescriptions and conditions proposed by license applicants. It would also allow alternatives to be proposed by other interested entities.

FPA Refund Effective Date

Section 1284 of the conference report on H.R. 6 would allow refunds from the date a complaint is filed or from publication of a notice that the Commission has instituted a proceeding under its own motion under section 206 of the FPA. This provision appropriately would protect customers by providing an additional 60 days of refund protection.

Additional Legislation

The conference report on H.R. 6 adequately addresses the urgent need for energy legislation. However, there are three additional areas the Congress might want to consider addressing, as described below.

Siting of LNG Facilities

With regard to liquefied natural gas (LNG), in order to effectively and efficiently site infrastructure that is in the public interest, the Congress should consider clarifying the Commission's jurisdiction to site LNG facilities onshore or in state waters, and provide for a single federal record and for direct appeal of LNG-related decisions to a United States court of appeals. The Commission currently is involved in litigation in the U.S. Court of Appeals for the 9th Circuit with respect to the scope of its authority to site LNG terminal facilities. Legislation could end regulatory uncertainty by clarifying the Commission's authority in this area. A single federal agency should have the statutory authority to determine whether a specific proposal for LNG infrastructure development is in the public interest. While no federal or state agency acting under federal law should lose its existing statutory authority, for example, Coastal Zone Management Act determinations and Clean Water Act certifications, a single agency should be responsible for the final public interest determination and be held accountable for that determination. In addition, the creation of one federal record would allow a single agency to serve as the lead agency for National Environmental Policy Act purposes. All federal and state agencies should work with the lead agency as it develops the record, and provide their decisions under their respective laws to the lead agency, within a timeframe set by that agency. Such a requirement would avoid sequential permitting. Finally, direct appeal to a United States court of appeals would av [illegible] the l [illegible] as individual permit appeal processes wend their way thr [illegible] -trative appeals, state court and finally federal court [illegible] mic Dispatch of Electric Facilities

The Congress should consider expanding the provision on "economic dispatch" contained in section 1237 of the conference report on H.R. 6. Economic dispatch refers to a public utility meeting the power needs of its customers by using the most economical facilities available, including those owned or operated by independent power producers. Specifically, the Congress should consider allowing the Commission to require a multi-state public utility to use economic dispatch if it will reduce the costs incurred in supplying power to the utility's customers. Economic dispatch also could reduce the amount of natural gas used to generate electricity and help alleviate the demand pressures on today's natural gas prices.

Authority to Require Emergency Revisions to FPA Tariffs

It would be helpful if the Congress gave the Commission emergency authority to approve temporary changes to, or temporarily suspend, tariff provisions on file with the Commission, if necessary to ensure reliability or prevent market power abuse. Today's markets are much more dynamic than traditional cost-based arrangements and can need corrective action much more quickly than the procedures historically used under the FPA. Legislation providing temporary authority to change or suspend tariff provisions without notice and comment, for a period up to 30 days, would allow the Commission to better protect customers in emergency circumstances.

Conclusion

Thank you again for the opportunity to address legislative recommendations to the Congress. The conference report on H.R. 6 would resolve appropriately the most important issues raised by the need to ensure an adequate supply of energy at reasonable prices. My testimony offers some additional improvements that the Congress should consider. With or without these improvements, the Congress needs to pass an energy bill. Our Nation's energy customers deserve no less. I would be happy to provide additional information or assistance as the Subcommittee reconsiders this legislation.

Mr. HALL. And we thank you. Mr. Reyes.

STATEMENT OF LUIS A. REYES

Mr. REYES. Mr. Chairman and members of the committee, it is a pleasure to appear before you to discuss the views of the United States Nuclear Regulatory Commission on the Energy Policy Act of 2005. My discussion will focus on those provisions that will directly affect the work of the Commission and the operations of its licensees.

The Commission is dedicated to ensuring adequate protection of public health and safety, the common defense and security, and the environment in the application of nuclear technology for civilian use. It is of the view that, overall, enactment of the nuclear-related provisions of H.R. 6, as reported by the conference committee, would be a significant step forward for the protection of public health and safety and the common defense and security. Indeed, it considers some of the provisions in the bill to be the most important nuclear security proposals relating to commercial nuclear activities that have been placed before the Congress. This legislation will also assist NRC in evaluating license applications for new nuclear facilities.

As your committee is aware, the Commission has taken many actions since September 11, 2001, to improve security at NRC-regulated facilities. Major actions we have taken include: ordering owners of nuclear power plants to increase physical security to defend against a more challenging threat; requiring strict site access controls for personnel; requiring utilities to conduct vehicle checks at greater stand-off distances; improving liaison with Federal, State, and local agencies responsible for protection of the national critical infrastructure; enhancing communications and liaison with the intelligence community; improving communication between military surveillance authorities, NRC, and its licensees in the event of an emergency; ordering plant owners to improve their capability to respond to events involving large explosions or fires; enhancing readiness of security organizations by strengthening training and qualification programs for plant security forces; enhancing force-on-force exercises to provide a more realistic test of plant capabilities to defend against an adversarial force; and reorganizing the NRC to better manage nuclear security and emergency response.

We have also worked with national experts to assess the consequences of terrorist attacks on nuclear facilities, including an attack from a large commercial aircraft. For the facilities analyzed, the results confirm that the likelihood of both damaging the reactor core and releasing radioactivity that could affect the public health and safety is low. Even in the unlikely event of a radiological release in these circumstances, the studies indicate that there would be time to implement onsite and offsite mitigating actions. These results have also validated the offsite emergency planning basis. We continue to add realism to our analyses while ensuring adequate protection of the public.

Over the years, the Nuclear Regulatory Commission has repeatedly expressed its support of enactment of legislation needing to strengthen the security of facilities regulated by the Commission. H.R. 6, as approved by the conference committee, contains provisions that will provide the authority for additional steps that should be taken to protect the country's nuclear infrastructure from terrorism attack and other criminal activities, and to prevent malevolent use of radioactive material.

Most important, it contains a provision that will allow the Commission to authorize armed security officers of NRC-regulated facilities, to use more powerful weapons against violent attacks against a nuclear facility, and against attempts to steal nuclear material that could cause significant harm in the wrong hands. It would also expand the current requirement for fingerprinting, for criminal history checks, of individuals with unescorted access to a utilization facility or access to safeguards information. This expansion of requirements also includes other NRC licensees and their employees, who either have access to radioactive material that could be used for malevolent purposes or access to safeguards information. It will criminalize the unauthorized introductions of dangerous weapons into nuclear facilities. In addition, it will criminalize sabotage of construction of nuclear facilities, and will cover a wider range of facility and activities in the provisions that are presently covered.

Other provisions of H.R. 6 that are important to nuclear safety and enhancement of NRC effectiveness and efficiency are delineated in my written testimony. Some provisions of H.R. 6 are not necessary to perform our mission, because the Commission has already addressed them, or is in the process of doing so, or because they do not necessarily improve security beyond what the NRC is already achieving through its activities, and because implementi
them will divert NRC's limited security resources from high
ority activities.

Mr. Chairman, in the interests of time, I will not list
sions which the Commission believes are not necessary

their mission, but they are included in my written testimony submitted to the committee.

The Commission would welcome the proper enactment of many H.R. 6 provisions that relate to commercial use of radioactive material, since they will assist the NRC in its effort to further ensure the adequate protection of public health and safety, and the common defense and security.

This complete my prepared remarks, and I will be happy to answer any questions.

[The prepared statement of Luis A. Reyes follows:]

PREPARED STATEMENT OF LUIS A. REYES, EXECUTIVE DIRECTOR FOR OPERATIONS, UNITED STATES NUCLEAR REGULATORY COMMISSION

INTRODUCTION

Mr. Chairman and members of the Committee, it is a pleasure to appear before you to discuss the views of the United States Nuclear Regulatory Commission on the Energy Policy Act of 2005. My discussion will focus on those provisions that would directly affect the work of the Commission and the operations of its licensees.

The Commission is dedicated to ensuring adequate protection of public health and safety, the common defense and security, and the environment in the application of nuclear technology for civilian use. It is of the view that, overall, enactment of the nuclear-related provisions of H.R. 6, as reported by the conference committee, would be a significant step forward for the protection of public health and safety and the common defense and security. Indeed, it considers some of the provisions in the bill to be the most important nuclear security proposals relating to commercial nuclear activities that have been placed before the Congress. This legislation would also assist NRC in evaluating license applications for new nuclear facilities.

As your Committee is aware, the Commission has taken many actions since September 11, 2001, to improve security at NRC-regulated facilities. Major actions we have taken include:

- Ordering owners of nuclear power plants to increase physical security to defend against a more challenging adversarial threat;
- Requiring strict site access controls for personnel;
- Requiring utilities to conduct vehicle checks at greater stand-off distances;
- Improving liaison with Federal, State, and local agencies responsible for protection of the national critical infrastructure;
- Enhancing communication and liaison with the intelligence community;
- Improving communication between military surveillance authorities, NRC, and its licensees in the event of emergency;
- Ordering plant owners to improve their capability to respond to events involving large explosions or fires;
- Enhancing readiness of security organizations by strengthening training and qualification programs for plant security forces;
- Enhancing force-on-force exercises to provide a more realistic test of plant capabilities to defend against an adversarial force;
- Requiring security improvements for high-risk radioactive sources; and
- Reorganizing the NRC to better manage nuclear security and emergency response.

We have also worked with national experts to assess the consequences of terrorist attacks on nuclear facilities, including an attack from a large commercial aircraft. For the facilities analyzed, the results confirm that the likelihood of both damaging the reactor core and releasing radioactivity that could affect the public health and safety is low. Even in the unlikely event of a radiological release in these circumstances, the studies indicate that there would be time to implement on-site and off-site mitigating actions. These results have also validated the off-site emergency planning basis. We continue to add realism to our analyses while ensuring adequate protection of the public.

LEGISLATIVE NEEDS

Over the years, the Nuclear Regulatory Commission has repeatedly expressed its support of enactment of legislation needed to strengthen the security of facilities regulated by the Commission. H.R. 6, as approved by the conference committee—hereafter, I will simply refer to that version as "H.R. 6" or "the bill"—contains provisions that would provide the statutory authority for additional steps that should be taken to protect the country's nuclear infrastructure from terrorist attack and other criminal activities, and to prevent malevolent use of radioactive material.

Most important, it contains a provision that would allow the Commission to authorize guards at NRC-regulated facilities and activities to receive and possess, and, in appropriate circumstances, to use more powerful weapons against violent attacks against a nuclear facility and to thwart attempts to steal nuclear material that could cause significant harm in the wrong hands. (Section 663 of the bill.) It would also expand the current requirement for fingerprinting, for criminal history checks, of individuals with unescorted access to a utilization facility or access to safeguards information, including in the provision other NRC licensees and their employees who either have access to radioactive material that could be used for malevolent purposes or access to safeguards information. (Section 662 of the bill.) It would criminalize the unauthorized introduction of dangerous weapons into nuclear facilities. (Section 664 of the bill.) In addition, it would criminalize sabotage of construction of nuclear facilities and would cover a wider range of facilities and activities in the provision than are presently covered—for example, it would add primary and backup facilities from which radiological emergency preparedness alert and warning systems are activated. (Section 665 of the bill.)

Other provisions important to nuclear safety and enhancement of NRC's effectiveness and efficiency that are included in the bill are:——(1) authorization for homeland security-related activities to be covered from the General Fund, with the exception of fingerprinting, criminal background checks, and security inspections (Section 668 of the bill); (2) clarification that NRC's jurisdiction extends to former licensees of production or utilization facilities to the extent that they own or control decommissioning funds (Section 626 of the bill); (3) clarification of the length of combined construction permits and operating licenses for new reactors (Section 621 of the bill); (4) authorization for NRC to charge Federal agencies fees for licensing and inspections (Section 623 of the bill); (5) elimination of NRC's antitrust review authority over power reactor licensee applications—such reviews duplicate the work of other Federal agencies, such as the Federal Energy Regulatory Commission and the Department of Justice, and would allow NRC's limited resources to be better used (Section 625 of the bill); and (6) human resources provisions that would contribute to maintaining the NRC's necessary regulatory expertise (Sections 622 and 624 of the bill). We were also pleased to see an extension of the Price-Anderson Act provisions applicable to NRC licensees in the bill (Section 602 of the bill).

Some provisions in H.R. 6 are not necessary to perform our mission, because the Commission has already addressed them, or is in the process of doing so, or because they do not necessarily improve security beyond what the NRC is already achieving through its activities, and because implementing them would divert NRC's limited security resources from higher priority activities. One such provision is section 661 of the bill, requiring a study of nuclear facility threats that pose a risk to the security of various classes of NRC-licensed facilities. Section 661 would authorize revision of the Design Basis Threat by rulemaking, which raises important questions about protection of classified and safeguards information. The section would also require the Commission to establish an operational safeguards response evaluation program that ensures that the physical protection capability and operational safeguards response for sensitive nuclear facilities will be tested periodically through force-on-force exercises. The NRC has established such a program. Another such provision is section 666, which would require the NRC to establish a system to ensure that export and import of radioactive materials are accompanied by a manifest, and that each individual receiving or accompanying the transfer of the materials in the United States shall be subject to a security background check. We have already taken the appropriate actions to protect the public from high risk sources.

SUMMARY

The Commission would welcome the prompt enactment of many H.R. 6 provisions that relate to commercial use of radioactive material since they would assist the NRC in its efforts to further ensure the adequate protection of the public health and safety and the common defense and security.

I appreciate the opportunity to appear before you today. The Commission would welcome the opportunity to work with your Committee, and the Committee's staff, on achieving the goal of passing this important legislation.

Mr. HALL. All right. We thank you very much. We will get underway with some of the questioning now. I yield myself 5 minutes. I will start with Mrs. Marlette, if I might, and I thank you for appearing, and I think it is a credit to you and to your background ability that Pat Wood says that, by letter, that you are authorized to speak on policy, and we thank you for your time.

Ms. MARLETTE. You are welcome.

Mr. HALL. Actually, FERC has siting authority for international natural gas pipelines under section 7, as you know, of the NGA. Regarding FERC backstop authority in the bill to order new transmission, would you please describe how FERC typically treats pipeline certificates, and how that might compare to the exercise of backstop transmission siting authority if the bill is enacted, and ask you a further question that might be easier for you to knock out of the park. We would want you to be fair with the States and local landowners, and you can and would do that.

Mr. MARLETTE. Yes, sir. As you said, the Commission does have authority under section 7 to certificate interstate natural gas pipelines. It has had, what, over 40—let us see, 70 years experience almost, in licensing projects. The Commission undertakes a thorough environmental analysis. It works very closely with State and local entities to ensure that local, including homeowner concerns are taken into account. I think if the Commission were given the backstop siting authority, which would only be for major transmission corridors identified by the Secretary of Energy, it would begin that pipeline experience to balancing all the interests that need to be taken into account in appropriate siting.

Mr. HALL. I thank you. And I will go to Mr. Garman, and ask you what are your top 3, or maybe 5, legislative priorities for the Department, and whether or not these legislative priorities are addressed in the Energy Policy Act that we are talking about. Also, in your opinion, if the Energy Policy Act policy of 2005 is enacted into law, and with steps taken at DOE, will the President's national energy policy be completed?

Mr. GARMAN. The top activity, or the top important priority, we think, that is critically important, and the testimony from FERC pointed to this, is to enhance electricity reliability and modernization through providing the regulatory certainty that has dissuaded investment in the transmission system for so long. We think it is critically important that—irrespective of what Congress does with certain individual aspects—the investment community needs to have the regulatory certainty to invest in the transmission and distribution network. That will do more to increase the reliability of the grid than a great many things that we could be working on.

We also believe that the provisions in the bill that look to that next generation of energy resources are very important. Hydrogen, next generation nuclear, clean burning coal plants, IGCC with coal sequestration, are all technologies that need to be brought across that finish line, so that we will not be having a debate similar to this one 20 years from now. In the near term, however, we can't wait for these new technologies for 20 or 30 years.

We need to take action now. That is why the provisions, to produce more energy on public lands today are so important, including the coastal plain of the Arctic National Wildlife Refuge. It might seem unusual for me, the Department's chief renewable energy advocate, if you will, to express support for oil production from the Arctic National Wildlife Refuge, but that is clearly energy the Nation needs, and it is important that we move ahead with it. The last time I checked, the Trans-Alaska Gas Pipeline, or the Trans-Alaska Oil Pipeline was down to about 875,000 barrels a day, and it has got capacity for at least a million more, and that is energy that we need to bring to market.

Similarly, the provisions for energy conservation and efficiency that are in the bill are very, very important to us. We think that is fundamental, and we applaud the work that the committee has done, and the Congress has done in this area as well. So I think that sums it up very generally, Mr. Chairman.

Mr. HALL. I thank you. At this time, I recognize for 5 minutes, Ranking Member Dingell. Thank you, Mr. Dingell.

Mr. DINGELL. [continuing] are these questions to Ms. Marlette. Chairman Wood indicates that he does not support the provisions on standard market design, or SMD, rule. He does not support the native load service obligation, the SMD, or the voluntary transmission pricing plans which are often referred to as participant funding. Have I correctly summarized the position of the chairman?

Ms. MARLETTE. I believe the chairman's position is that he does not think those provisions are needed. With regard to the SMD provision, the Commission has made tremendous progress with voluntary RTOs and ISOs since the time that provision first appeared.

Mr. DINGELL. Thank you.

Ms. MARLETTE. So in ways, it is outdated. With regard to the native load——

Mr. DINGELL. Thank you. My time is very limited. On the other hand, the chairman has suggested that 3 entirely new legislative provisions should be included in the energy bill that would do as follows: authorize FERC to order expansion of transmission facilities for reliability purposes; two, authorize FERC to mandate the use of economic dispatch of generation; and three, grant FERC emergency authority to temporarily suspend or modify, file tariff provisions to ensure the reliability or prevent market power abuse. Am I correct in that?

Ms. MARLETTE. On the first provision, we are not recommending, and the chairman is not recommending, that FERC be given the authority to direct reliability transmission expansions, but rather, that the electric reliability organization that would be created in the new reliability provision be able to——

Mr. DINGELL. So he is urging that that be a power given to the reliability organization——

Ms. MARLETTE. But——

Mr. DINGELL. [continuing] as opposed to FERC.

Ms. MARLETTE. Correct, but it would only be in circumstances where there is not a regional planning process in place, and also, it would be subject to State and local siting authority.

Mr. DINGELL. All right.

Ms. MARLETTE. With the backstop siting for Federal authority kicking in if the State could not act, or did not act on a timely basis.

Mr. DINGELL. Now, am I correct on my appreciation on the other two points?

Ms. MARLETTE. You are correct that he is proposing that the Commission be allowed to order economic dispatch where it reduce costs to customers, in a multi-state——

Mr. DINGELL. Would you please see to it that prior to Monday, February 14, that we receive legislative language suggested by the Commission?

Ms. MARLETTE. Yes, sir. You will have a Valentine——

Mr. DINGELL. By that date.

Ms. MARLETTE. [continuing] present.

Mr. DINGELL. Now——

Ms. MARLETTE. Yes, sir.

Mr. DINGELL. Because we will need to have the consideration, that is the appropriate time and fashion. Now, I note the reliability section caps spending for transmission reliability at the rate of $50 million a year for a period of 10 years. Can you explain to us why this level of funding is necessary, why it is adequate, or whether it is adequate, to provide the—rather, to accomplish the task of making currently voluntary rules mandatory and enforceable? Does FERC have any estimates as to how much it would cost to properly implement this title?

Ms. MARLETTE. Mr. Dingell, I can't explain that to you, those provisions were a surprise to us. We are still analyzing them. We have not estimated, at this time, what it would cost the Commission to implement its part of the bill. There is also a cap there on the expenditures of the ERO itself, so we are still looking at that.

Mr. DINGELL. Most of the expenditures to be made to comply with the reliability sections will be expenditures that will be required to be made by the licensees. Those numbers may be very large, but they are not Federal funds, unless they might be, perhaps, imposed on Bonneville, or perhaps some Federal generating entity. Is that correct?

Ms. MARLETTE. The ERO would collect fees and charges from members, because the rules would be mandatory for both private as well as public utility organizations, there would be fees collected to sustain the organization. That is correct. But that is a separate issue from what the Commission would have to spend to implement its oversight of that organization.

Mr. DINGELL. Could you submit to us, as some information which would assist us, first what would be required in the way of expenditures by the Commission, and second, what would be the level of those expenditures, so we can find out whether this cap is necessary, whether it is too large, whether it is too small, or whether the committee ought to arrive at some different judgment with regard to the expenditures that will be imposed upon the Commission by reason of the legislation.

Ms. MARLETTE. Yes, sir. We will.

[The following was submitted for the record:]

FEDERAL ENERGY REGULATORY COMMISSION
WASHINGTON, DC 20426

OFFICE OF THE CHAIRMAN

February 14, 2005

The Honorable John D. Dingell
Ranking Member
Committee on Energy and Commerce
U.S. House of Representatives
Washington, D.C. 20515-6115

RE: Federal Energy Legislation

Dear Congressman Dingell:

This letter responds to your request at the February 10, 2005, hearing before the Subcommittee on Energy and Air Quality on the Energy Policy Act of 2005 discussion draft. At the hearing, you requested specific legislative text for the changes proposed by the Chairman of the Federal Energy Regulatory Commission to the legislation. I have enclosed the text with this letter. I want to emphasize that the discussion draft in its current form addresses the major issues affecting Commission-regulated industries and I support it. The recommended modifications and additions are only suggested improvements to the bill.

This letter also responds to your request for an estimate of the level of expenses that would be incurred in implementing the reliability provisions in Section 1211 of the discussion draft. There are two expense-related provisions in the discussion draft. The first provision would place a $50 million per year cap, in each of the fiscal years 2006 through 2015, on dues, fees and other charges that would be collected by the Electric Reliability Organization (ERO). The second provision would authorize to be appropriated not more than $50 million per year, for fiscal years 2006 through 2015, "for all activities" under the new reliability provisions.

The two ERO provisions, as written, are subject to differing interpretations and my staff is still studying them and consulting with North American Electric Reliability Council (NERC) with respect to NERC expenses. However, I believe the cost to the FERC of administering its responsibilities under the new reliability provisions will be approximately $5 million per year. Last fiscal year, in the wake of the August 2003 blackout, Congress earmarked $5 million to the FERC for reliability activities. We have used this money productively to investigate the causes of the blackout, promote new reliability policy initiatives, and hire new staff with reliability expertise. The President has requested and we received the same $5 million for the current fiscal year. Therefore, we estimate that the funding needed for the FERC to implement the legislation represents no increase over the current and previous fiscal yearreliability expenditures. I do not have an estimate for the additional funding that may be needed for the ERO to implement the legislation.

If you need additional information, please do not hesitate to let me know.

Best regards,

Pat

Pat Wood, III
Chairman

cc: The Honorable Joe Barton, Chairman
House Committee on Energy and Commerce

Enclosure

NATURAL GAS PROVISIONS

I. Proposed Amendments to the February 8, 2005 Discussion Draft Language of the Energy Policy Act of 2005.

Market Transparency

SEC. 332. NATURAL GAS MARKET REFORM.

* * *

(c) JURISDICTION OF THE CFTC- The Natural Gas Act (15 U.S.C. 717 et seq.) is amended by adding at the end:

"SEC. 26. JURISDICTION.

"This Act shall not affect the exclusive jurisdiction of the Commodity Futures Trading Commission with respect to accounts, agreements, contracts, or transactions in commodities under the Commodity Exchange Act (7 U.S.C. 1 et seq.). ~~Any request for information by the Commission to a designated contract market, registered derivatives transaction execution facility, board of trade, exchange, or market involving accounts, agreements, contracts, or transactions in commodities (including natural gas, electricity, and other energy commodities) within the exclusive jurisdiction of the Commodity Futures Trading Commission shall be directed to the Commodity Futures Trading Commission, which shall cooperate in responding to any information request by the Commission.'.~~

* * *

SEC. 333. NATURAL GAS MARKET TRANSPARENCY.

The Natural Gas Act (15 U.S.C 717 et seq.) is amended—

(1) by redesignating section 24 as section 25; and
(2) by inserting after section 23 the following:

"SEC. 24. NATURAL GAS MARKET TRANSPARENCY.

"(a) AUTHORIZATION- The Commission is authorized to issue such rules as it deems appropriate to establish an electronic information system to provide the Commission and the public with access to such information as is necessary or appropriate to facilitate price transparency and participation in wholesale natural gas markets. The Commission may require such system to provide information about the availability and prices of natural gas sold at wholesale in interstate commerce to the Commission, State commissions, buyers and sellers of wholesale natural gas, and the public on a timely basis. The Commission shall have authority to obtain such information from any market participant, and to rely on an entity other than the Commission to receive and make public such information.

"(b) EXEMPTIONS- The Commission shall exempt from disclosure information it determines would, if disclosed, be detrimental to the operation of an effective market or jeopardize system security. In determining the information to be made available under this section and time to make such information available, the Commission shall seek to ensure that consumers and competitive markets are protected from the adverse effects of potential collusion or other anti-competitive behaviors that can be facilitated by untimely public disclosure of transaction-specific information.
~~(1) Not later than 180 days after the date of enactment of the Energy Policy Act of 2005, the Federal Energy Regulatory Commission shall issue rules directing all entities subject to the Commission's jurisdiction as provided under this Act to timely report information about the availability and prices of natural gas sold at wholesale in interstate commerce to the Commission and price publishers.~~

~~"(2) The Commission shall evaluate the data for adequate price transparency and accuracy.~~

~~"(3) Rules issued under this subsection requiring the reporting of information to the Commission that may become publicly available shall be limited to aggregate data and transaction-specific data that are otherwise required by the Commission to be made public.~~

~~"(4) In exercising its authority under this section, the Commission shall not--~~

> ~~"(A) compete with, or displace from the market place, any price publisher; or~~
>
> ~~"(B) regulate price publishers or impose any requirements on the publication of information.~~

"~~(b)~~ (c) SAVINGS PROVISION- In exercising its authority under this section, the Commission shall not--

> "(1) compete with, or intentionally displace from the market place, any commercial price publisher; or
>
> "(2) regulate price publishers or impose any requirements on the publication of information by such price publishers. ~~TIMELY ENFORCEMENT- No person shall be subject to any penalty under this section with respect to a violation occurring more than 3 years before the~~

~~date on which the Federal Energy Regulatory Commission seeks to assess a penalty.~~

"~~(c)~~(d) LIMITATION ON COMMISSION AUTHORITY- (1) The Commission shall not condition access to interstate pipeline transportation upon the reporting requirements authorized under this section.

"(2) ~~Natural gas sales by a producer that are attributable to volumes of natural gas produced by such producer shall not be subject to the rules issued pursuant to this section.~~

~~"(3)~~ The Commission shall not require natural gas producers, processors, or users who have a de minimis market presence to participate in the reporting requirements provided in this section.".

II. Proposed Amendments to the Statutory Language of the Natural Gas Act and Natural Gas Policy Act.

Liquefied Natural Gas Provisions

The following proposed amendments would replace Section 1442 in Title XIV of the Feb. 8, 2005 discussion draft.

Section 3 of the Natural Gas Act (15 U.S.C. 717b) is amended by adding at the end the following:

"(d) IMPORT FACILITIES. –

"(1) The Commission shall have the exclusive authority to approve or disapprove the siting, construction, expansion, or operation of facilities located onshore or in State waters for the import of natural gas from a foreign county or the export of natural gas to a foreign country. Requirements for authorizations from other Federal or State agencies under Federal law, including the Coastal Zone Management Act and the Clean Water Act, shall remain in effect subject to the provisions of sections 16 and 19 of this Act.

"(2) No facilities located onshore or in State waters for the import of natural gas from a foreign country or the export of natural gas to a foreign country shall be sited, constructed, expanded, or operated, unless the Commission has authorized such acts or operations.

"(3) The provisions of section 7(h) of this Act shall apply to the acquisition, pursuant to authorization under this section, of land or other property necessary for the siting, construction, expansion, or operation of facilities located onshore or in State waters for the import of natural gas from a foreign county or the export of natural gas to a foreign country."

Section 16 of the Natural Gas Act (15 U.S.C. 717p) is amended by adding at the end the following:

"(c) ENVIRONMENTAL REVIEW

"(1) With respect to any application for authorization under section 3 or a certificate of public convenience and necessity under section 7 of this Act, and any other Federal or State administrative proceeding under Federal law that is required in connection therewith, the Commission shall, unless it orders otherwise, be the lead agency for purposes of complying with the National Environmental Policy Act of 1969 (42 U.S.C. 4321 et seq.).

"(2) (A) For each proceeding referenced in subsection (1), the Commission shall, after consulting with affected Federal and State agencies and with due consideration of recommendations by such agencies, establish a schedule for all Federal and State administrative proceedings under Federal law that are required in connection with the siting, construction, expansion, or operation of a natural gas pipeline or import or export facility.

"(B) If a Federal or State administrative agency or officer fails to complete a proceeding in accordance with the schedule established by the Commission, any approval or other action required by Federal law shall be presumed without condition, and no further approval or other condition from that agency or officer shall be required.

"(3) With respect to the siting, construction, expansion, or operation of any facility under section 3 or section 7 of this Act, the administrative record compiled by the Commission shall be the sole record for all actions under Federal law with respect to the authorization of those facilities, and for judicial review of those actions."

Section 19 of the Natural Gas Act (15 U.S.C. 717r) is amended by adding at the end the following:

"(d) All State or Federal decisions under Federal law that are required in connection with the siting, construction, expansion, or operation of a natural gas pipeline or import or export facility authorized under this Act, may be appealed directly and exclusively to a single circuit court of appeals of the United States, following action by the Commission on any application for rehearing of the Commission order under Section 3 or 7 of this Act, and in the manner prescribed in this section.

Penalties

i. Increase in criminal penalties under the NGA and the NGPA

Section 21 of the Natural Gas Act is amended as follows:

Subsection 21(a):
by striking "$5,000" and by inserting "$1,000,000"; and
by striking "two years" and by inserting "five years"

Subsection 21(b):
by striking "$500" and by inserting "$50,000"

Section 504 of the NGPA is amended as follows:

Subsection 504(c)(1)(A):
by striking "$5,000" and inserting "$1,000,000"

Subsection 504(c)(1)(B):
by striking "two years" and inserting "five years"

Subsection 504(c) (2):
by striking "$500 for each violation" and inserting "$50,000 for each and every day during which such offense occurs"

ii. Creation of civil penalty authority under the NGA

The Natural Gas Act is amended as follows:

Inserting a new Section 21A to immediately follow Section 21, with Section 21A to read as follows:

> "Any person who violates this Act or any rule, regulation, restriction, condition, or order made or imposed by the Commission under authority of this Act, shall be subject to a civil penalty of not more than $1,000,000 per day per violation for as long as such violation continues. Such penalty shall be assessed by the Commission after notice and opportunity for public hearing. In determining the amount of a proposed penalty, the Commission shall take into consideration the nature and seriousness of the violation and the efforts to remedy the violation."

iii. Increase in the amount of civil penalties available under the NGPA

Section 504 of the Natural Gas Policy Act is amended as follows:

Subsection 504(b) (6) (i):
By striking "$5,000" and inserting "$1,000,000"

Subsection 504(b) (6) (ii):
By striking "$25,000" and inserting "$1,000,000"

ELECTRIC PROVISIONS

I. Proposed Amendments to the February 8, 2005 Discussion Draft Language of the Energy Policy Act of 2005.

Market Transparency

SEC. 1281. MARKET TRANSPARENCY RULES.

Part II of the Federal Power Act (16 U.S.C. 824 et seq.) is amended by adding at the end the following:

"SEC. 220. MARKET TRANSPARENCY RULES.

"(a) ~~IN GENERAL~~AUTHORIZATION- ~~Not later than 180 days after the date of enactment of this section, t~~The Commission ~~shall issue~~is authorized to issue such rules ~~establishing~~ as it deems appropriate to establish an electronic information system to provide the Commission and the public with access to such information as is necessary or appropriate to facilitate price transparency and participation in markets subject to the Commission's jurisdiction under this Act. The Commission may require ~~S~~such systems to ~~shall~~ provide information about the availability and market price of wholesale electric energy and transmission services to the Commission, State commissions, buyers and sellers of wholesale electric energy, users of transmission services, and the public on a timely basis. The Commission shall have authority to obtain such information from any electric utility or transmitting utility, including any entity described in section 201(f), and to rely on an entity other than the Commission to receive and make public such information.

"(b) EXEMPTIONS- The Commission shall exempt from disclosure information it determines would, if disclosed, be detrimental to the operation of an effective market or jeopardize system security. This section shall not apply to transactions for the purchase or sale of wholesale electric energy or transmission services within the area described in section 212(k)(2)(A). In determining the information to be made available under this section and time to make such information available, the Commission shall seek to ensure that consumers and competitive markets are protected from the adverse effects of potential collusion or other anti-competitive behaviors that can be facilitated by untimely public disclosure of transaction-specific information.

"(c) COMMODITY FUTURES TRADING COMMISSION- This section shall not affect the exclusive jurisdiction of the Commodity Futures Trading Commission with respect to accounts, agreements, contracts, or transactions in commodities under the Commodity Exchange Act (7 U.S.C. 1 et seq.). ~~Any~~

~~request for information to a designated contract market, registered derivatives transaction execution facility, board of trade, exchange, or market involving accounts, agreements, contracts, or transactions in commodities (including natural gas, electricity and other energy commodities) within the exclusive jurisdiction of the Commodity Futures Trading Commission shall be directed to the Commodity Futures Trading Commission.~~

"(d) SAVINGS PROVISION- In exercising its authority under this section, the Commission shall not--

"(1) compete with, or intentionally displace from the market place, any commercial price publisher; or

"(2) regulate price publishers or impose any requirements on the publication of information by such price publishers.".

Electric Reliability Standards

SEC. 1211. ELECTRIC RELIABILITY STANDARDS.

(a) In general. – Part II of the Federal Power Act (16 U.S.C. 824 et seq.) is amended by adding at the end the following:

"SEC. 215. ELECTRIC RELIABILITY.

"(a) DEFINITIONS. –

* * *

"(3) The term 'reliability standard' means a requirement, approved by the Commission under this section, to provide for reliable operation of the bulk-power system. The term includes requirements for the operation of existing bulk-power system facilities, ~~and~~ the design of planned additions or modifications to such facilities to the extent necessary to provide for reliable operation of the bulk-power system, and, in an area not included in a Commission-recognized regional planning process, the enlargement of existing transmission facilities or construction of new transmission facilities needed for reliable operations. The term does not include any requirement to enlarge existing generation capacity or to construct new generation capacity. ~~but the term does not include any requirement to enlarge such facilities or to construct new transmission capacity or generation capacity~~ A requirement to enlarge or construct transmission facilities shall be subject to applicable State or local siting requirements and also subject to the provisions in section 216b – 216k [Siting of Interstate Electric Transmission Facilities].

* * *

"(i) SAVINGS PROVISIONS. – (1) The ERO shall have authority to develop and enforce compliance with reliability standards for only the bulk power system.

"(2) This section does not authorize the ERO or the Commission to order the construction of additional generation ~~or transmission~~ capacity or to set and enforce compliance with standards for adequacy or safety of electric facilities or service.

* * *

SEC. 1221. SITING OF INTERSTATE ELECTRIC TRANSMISSION FACILITIES.

"SEC. 216. SITING OF INTERSTATE ELECTRIC TRANSMISSION FACILITIES.

* * *

"(b) CONSTRUCTION PERMIT. – Except as provided in subsection (i), the Commission is authorized, after notice and an opportunity for hearing, to issue a permit or permits for the construction or modification of electric transmission facilities in a national interest electric transmission corridor designated by the Secretary under subsection (a) or the construction or modification of electric transmission facilities required under section 215 if the Commission finds that –

* * *

II. Proposed Amendments to the Statutory Language of the Federal Power Act

Penalties

i. Increase in the criminal penalty authority under the FPA

Section 316 of the Federal Power Act is amended as follows:

Subsection 316(a):
by striking "$5000" and inserting "$1,000,000"; and
by striking "two years" and inserting "five years"

Subsection 316(b):
by striking "$500" and inserting "$25,000"

by striking Subsection 316(c).

ii. Addition of Civil Penalty Authority for the FPA

Section 316A of the Federal Power Act is amended as follows:

Subsection 316A (a):
by striking "section 211, 212, 213, or 214" and inserting "Part II or Part III of this Act"

Subsection 316A (b):
by striking "section 211, 212, 213, or 214" and inserting "Part II or of Part III of this Act"; and
by striking "$10,000" and inserting "$1,000,000"

Economic Dispatch

Section 205(f) of the Federal Power Act is amended as follows:

by striking subsection (3);
by renumbering subsection (4) as subsection (3); and,
by adding a new subsection (4) at the end stating:

> "(4)(A)"Efficient dispatch" defined – For purposes of this section, the term "efficient dispatch" means the operation of the integrated transmission and electric power supply system in a manner that schedules and economically prioritizes all available electric generation resources, including proposed offers from nonaffiliated power suppliers, so as to minimize the cost of electric power used to serve customers reliably, recognizing any operational limits of generation and transmission facilities, and applicable laws on environmental limitations and renewable portfolio standards.
>
> (B) Not later than 180 days after the date of enactment of this section, the Commission, after consultation with State commissions, shall adopt (and from time to time thereafter revise) standards to guide public utilities in the implementation of efficient dispatch. Such standards shall be designed to ensure that all generation resources have the opportunity, under terms that are just, reasonable and not unduly discriminatory or preferential, to specify their availability to provide, and their price for, power and energy for inclusion in efficient dispatch.
>
> (C) The Commission may, on its own motion or upon complaint, after an opportunity for hearing and after consultation with affected State commissions, order a multi-state public utility to use efficient dispatch if the Commission finds that its use will reduce the cost of electric power used to serve the utility's customers reliably."

Emergency Authority

Section 202 of the Federal Power Act is amended as follows:

By inserting a new subsection 202(h):

"Section 202(h). If necessary in emergency circumstances to ensure continued reliability of service to electric customers or to protect electric customers from potential abuse of market power in wholesale markets regulated by the Commission, the Commission, upon petition or upon its own motion, and before providing notice and an opportunity to be heard, shall have emergency authority to change or suspend temporarily the rates, terms or conditions of service on file with the Commission pursuant to the Federal Power Act, provided that the change or suspension may remain in effect no more than 30 days unless the Commission, during such period, provides formal notice and an opportunity to be heard pursuant to section 206 of the FPA and determines that such change or suspension shall remain in effect pursuant to findings under section 206. Any temporary change or suspension of a filed rate, term or condition of service pursuant to this provision shall take effect only upon a written public notice issued by the Commission which states the Commission's findings in support of the temporary change or suspension."

Mr. DINGELL. Again, could you do that by the 14th? I hate to ask these time limits, but you understand that the—our chairman has indicated he is going to proceed very rapidly on this bill, and if we fail to be ready, we may not know what we are doing with regard to important questions on which we need the advice of the Commission.

Mr. Chairman, I thank you for your courtesy to me.

Mr. HALL. Thank you, Mr. Dingell. I think I want to ask at this time unanimous consent to put in the record a letter dated today, from the Federal Energy Regulatory Commission signed by Pat Wood, the Chairman, setting out the description of the authority, scope, and testimony, and ability of Commission staff to speak for the Commission. I ask this to be made a part of the record.

[The letter referred to follows:]

FEDERAL ENERGY REGULATORY COMMISSION
WASHINGTON, DC 20426

February 10, 2005

OFFICE OF THE CHAIRMAN

The Honorable Joe Barton
Chairman
Committee on Energy and Commerce
U.S. House of Representatives
Washington, DC 20510

Dear Chairman Barton:

Thank you for your letter of February 9, 2005, requesting a written description of the authority, scope of testimony and ability of Commission staff to speak for the Commission when staff testifies before a Congressional Committee.

The Commission formally "speaks," by majority vote, through its orders, opinions, rules, policy statements or other public documents that have been voted on. Commissioners may give their individual views through dissents and concurrences to such formal documents or through speeches, testimony or other individual statements. When FERC's Chairman, a Commissioner or a Commission staff member testifies in Congress, he or she speaks individually, not for the Commission as a whole, unless he or she has been authorized to speak on behalf of the other Commissioners. However, any Commissioner or Commission staff member who is testifying may describe or explain the Commission's policies or positions taken in formally issued documents.

Testimony submitted by FERC staff generally contains an explicit "disclaimer" stating that they speak only for staff, and not for the Commission or any individual Commissioner. However, as allowed by the letter of invitation for this week's hearing before the Subcommittee on Energy and Air Quality, the Commission's General Counsel has submitted testimony as my designee, and her testimony in this instance is consistent with my views. Neither my designee nor I can bind the Commission or another Commissioner without the Commission's or the other Commissioners' authorization.

If you need any further information on this matter, please let me know.

Best regards,

Pat Wood, III
Chairman

Mr. HALL. At this time, I recognize Ranking Member Boucher, the gentleman from Virginia, for 5 minutes.

Mr. BOUCHER. Well, thank you very much, Mr. Chairman.

Ms. Marlette, I have a series of questions for you, and I also want to thank you for your presence here this morning, and your provision of testimony to us. I understand that the FERC is recommending to us that authority be given to the agency with respect to liquefied natural gas facilities. Answer for me several questions concerning those facilities, if you would, please.

First of all, what authority do you currently have over the siting or other aspects of the construction of LNG facilities? Second, exactly what authority do you seek? And third, describe, if you would, what the effect would be on the role of the States in enforcing State environmental laws in the event that your request for authority is honored, and you are given the authority that you seek?

Ms. MARLETTE. I will try, sir. What we are seeking is clarification of authority that the Commission thinks it already has under section 3 of the Natural Gas Act with regard to foreign commerce, imports of LNG, and the siting of terminals, either onshore or in State waters, to accommodate that LNG. We are currently in a dispute in the Ninth Circuit with the California Public Utilities Commission over that authority. Now, I would make very clear that that authority, which is siting, is very separate from State authority under the Coastal Zone Management Act, section 401 Water Quality Act certifications, or other Federal laws which States are tasked with implementing. We are not recommending changing any of that. So in the Commission's view, this would be a clarification of authority.

We are also recommending, and I will be providing specific legislative text, a mechanism or a legislative approach that would bring together the records of all the Federal agencies that have a role in getting LNG terminals sited, so that we have one Federal record, and also, that the Commission be the lead agency, and be able to establish timelines, not to interfere with timelines that are set forth in other Federal statutes, but to try to get the agencies to work at the same time, rather than in a sequential process, so that we can expedite and harmonize all those processes.

The third piece of what we are recommending would be to have the records of all the agencies go to the same court, to a United States Court of Appeals, at the same time, so that they can be reviewed at the same time. And again, the attempt is to harmonize, to clarify the FERC's siting authority, but not intrude on other Federal statutes.

Mr. BOUCHER. Well, what about the role of the States? Suppose you are given the authority that you seek. Would the role of the States at enforcing environmental statutes, for example, be diminished at all?

Ms. MARLETTE. They should not be diminished, in my opinion.

Mr. BOUCHER. So the States still would have the authority to say no to the siting of an LNG facility if it deemed that such a siting was contrary to local environmental requirements.

Ms. MARLETTE. Right. Or if there were a coastal zone management conflict, they would be able to say no as well.

Mr. BOUCHER. So you are not seeking the authority to have a preemptive Federal permit that, once issued, would enable the facility to be sited, notwithstanding State objection?

Ms. MARLETTE. Correct.

Mr. BOUCHER. Okay. Let me ask you about another subject. I don't think you have addressed this in your testimony, but in the course of drafting the legislation last year, and in negotiating the conference agreement, we were very careful to preserve the authority of the FERC to review mergers within the electricity industry. You do not, as I understand it, currently however have authority to review mergers that are generation to generation only. In other words, if the sole business of the entities that would be merging would be the generation of electricity without regard to transmission or distribution, I am told you do not have authority to review those. Is that correct, and if it is, would you be—what would your reaction be to the grant of authority for you to review those mergers?

Ms. MARLETTE. It is partially correct. Let me clarify. If there is an actual merger of two utilities, and there is some piece of transmission attached, a wire, perhaps, or a transformer, which is often how the Commission's jurisdiction is triggered, or if there is a transfer of a wholesale contract along with that generation, the Commission does have jurisdiction under existing law. The gap, in my view, is only where you solely have an acquisition of generation, and there is nothing else.

Mr. BOUCHER. But——

Ms. MARLETTE. That is the gap.

Mr. BOUCHER. And I am trespassing on others' time here, but momentarily, let me just ask, let us suppose you have the situation where you don't have the connecting wire, you don't have the transfer of the wholesale power contract, where it really is just the acquisition of one generator by another. Should you have authority to review those?

Ms. MARLETTE. I think that someone should have authority. Chairman Wood's view, as expressed to me yesterday, is that he does not like the notion of duplicative authority, that to the extent another agency, such as the Justice Department or the FTC in their antitrust review have authority, then the Commission shouldn't have overlapping, duplicative authority.

Mr. BOUCHER. Well, we could carry on a discussion about the theory of that answer at some length. I don't agree with what you are saying. However, Mr. Chairman, my time has expired. Thank you very much.

Mr. HALL. Thank you. The Chair now recognizes Mr. Whitfield, the gentleman from Kentucky, who did not wave, recognize your for—did wave—recognize you for 8 minutes.

Mr. WHITFIELD. Mr. Chairman, thank you very much. Ms. Marlette, several municipalities within the TVA's service authority have served notice to TVA that they are goi[illegible] to [illegible] n [illegible] t [illegible] r contracts. They have been told that once t[illegible] p [illegible] from TVA, that they will no longer have [illegible] mission lines, and at a time when we [illegible] transmission lines, siting is difficult. I[illegible] much concerned about that, and t[illegible] budget for fiscal year 2006, that there was funding for FERC to assert, I suppose, additional jurisdiction over TVA. I was really not aware that FERC had very much jurisdictional authority over TVA, and I was wondering if you might elaborate on what the authority is, and whether or not FERC may need additional legislative assistance to become more involved in issues like that.

Ms. MARLETTE. Yes, sir. Mr. Whitfield, FERC does have some existing authority over TVA, not a lot. Its authority is limited to being able to order transmission access under section 211 of the Federal Power Act. There are certain provisions regarding TVA, TVA-specific provisions, and the Commission has to make certain findings, but the Commission can, and actually has, in certain circumstances, ordered TVA to provide service. Now, there are some restrictions, because of the ring fence around TVA, in allowing customers to basically shop outside the region, so there are specific restrictions in that regard. In fact, I think we may have some actual pending cases involving a 211 request for TVA service.

Mr. WHITFIELD. Well, now, I had understood that American Electric Power, perhaps, had filed a complaint against TVA on an issue similar to that. Is that correct?

Ms. MARLETTE. I am not aware——

Mr. WHITFIELD. East Kentucky.

Ms. MARLETTE. [continuing] of a complaint.

Mr. WHITFIELD. East Kentucky.

Ms. MARLETTE. Oh, East Kentucky, yes. Yes. We have a pending case.

Mr. WHITFIELD. And could you elaborate a little bit more on—municipalities along the dividing line have much easier access to other power lines. Within the TVA access area, it is certainly more difficult there. Would you elaborate on what additional authority FERC would need to get into some of those issues, as well?

Ms. MARLETTE. I may need to provide it for you after the hearing, if I could, for the record.

Mr. WHITFIELD. Okay.

Ms. MARLETTE. I would need to take a look at the statute, to tell you exactly what one would need to do to give the Commission that authority. My recollection is that other than the city of Bristol, Virginia, customers within that region cannot—the Commission cannot order access, so that they can reach suppliers outside of the area.

Mr. WHITFIELD. Other——

Ms. MARLETTE. That is pursuant to the TVA Act, and then, the restrictions are carried over into the Power Act.

Mr. WHITFIELD. Now, there was a lawsuit regarding the Bristol, Virginia area, wasn't there?

Ms. MARLETTE. I believe they did get service, is my——

Mr. BOUCHER. Would the gentleman——

Mr. WHITFIELD. Yes.

Mr. BOUCHER. As the representative of Bristol, Virginia, I have a certain history with this subject. In the 1992 Energy Power Act, we—or the amendments thereto, we adopted a provision that directed that Wheeling be provided across the TVA system for the city of Bristol, Virginia, should it purchase power from an independent supplier. That was never contested in court, and it has worked very efficiently.

Mr. WHITFIELD. Okay. Thank you, Mr. Boucher. Thank you very much, and Mr. Reyes, I would like to ask you one question as well. I noticed in the President's budget request, there was a substantial request for additional funding for safety security measures at the uranium enrichment plant in Paducah, and I was wondering if you might elaborate on needs that were identified there.

Mr. REYES. In this forum, it is hard to go into details of security, but the licensee and the NRC has required a significant increase on the security at all the facilities.

Mr. WHITFIELD. Okay.

Mr. REYES. And the funding is just to support those initiatives.

Mr. WHITFIELD. Okay. Now, these security guards at the plant have been making arguments that with cleanup as well, that there needs to be additional security at the cleanup sites. Do you have a position on that, or an opinion on that?

Mr. REYES. Well, if it is under the jurisdiction of the Commission, the specific case you are talking about, the Paducah facility, they are colocated facilities, where some of them are under the jurisdiction of the Nuclear Regulatory Commission, and others are under the Department of Energy. So specific—speaking only for the Nuclear Regulatory Commission, once certain activities are just limited to waste, the security level is decreased.

Mr. WHITFIELD. Okay.

Mr. REYES. And we don't publicly explain what that is detailed, but the security requirements significantly decrease.

Mr. WHITFIELD. Okay. Thank you. Mr. Chairman, I will yield back the balance of my time.

Mr. HALL. Thank you. I recognize the lady from California, Ms. Capps, for 5 minutes.

Ms. CAPPS. Thank you, Mr. Chairman. Thank you to each of our witnesses today, and I want to continue the line of questioning that our ranking member started with you, Ms. Marlette, if I may. You are an important witness. Some of the LNG-related provisions in H.R. 6 and what FERC has said it wants in new energy legislation are controversial, and strike many of us here as usurping a State's ability to be involved in the decisionmaking process of these giant LNG facilities.

For example, section 330 of H.R. 6 would reduce a State's ability to weigh in on LNG proposals by allowing FERC to control the record of appeal. This seems, despite your reassurances, to undermine critical protections in the Coastal Zone Management Act. FERC has also indicated it wants legislation giving it unambiguous controlling Federal authority, including the power of eminent domain, an exclusive jurisdiction over the siting of onshore LNG facilities nationwide. The concern with all of these provisions is what we—is that we are centralizing a huge amount of decisionmaking authority over these very controversial and complicated projects in one agency, namely FERC.

So my question to you is, what assurances can you give a State like mine, California, Massachusetts, Alabama, Virginia, that have—that their concerns about LNG siting will be addressed during the review process? How do they know that FERC wouldn't just ignore their concerns?

Ms. MARLETTE. To the extent it would be helpful, we are working on proposed language which we will submit to you, we will try to make it as clear as we possibly can that, as I stated earlier, State actions under the CZMA and other Federal statutes will not be impaired. And we will try our best to do that. With respect to the issue of eminent domain authority, at least the chairman's position, and our technical staff's position so far, has been that these projects have a national interest with respect to energy supply in the country. We do need to respect States' concerns. But if there is not eminent domain authority, you can have one homeowner basically holding up a project that would benefit a region or a State.

Ms. CAPPS. I understand what you are saying, but there are other ways of ensuring that that will not happen. I understand, also, that we need energy. But these are, as you know, very incredibly complicated projects, many of them involving a variety of subjects, most of which FERC has very little expertise in. For example, FERC is not an expert on local land use and zoning, public health and safety, environmental protection, wildlife management, or homeland security. FERC's expertise is in energy, not in this myriad of other subjects, which must be addressed if—before any siting decisions are made. And I know that you have signed an interagency agreement with a number of Federal agencies, and that gives FERC the final word. I know FERC is actually fighting California, as you have referred to, to keep the State out of this decisionmaking process, and the way I read these legislative proposals, FERC wouldn't have to pay attention to any other legislative agencies or States if you decided that it was not in our national energy interests or whatever. And the bottom line is FERC has the ultimate power on these decisions. Am I correct?

Ms. MARLETTE. No. I don't think that is correct, because the argument in court is between the Commission and the California Public Utilities Commission. It is not between the Commission and other State agencies who have the responsibility under the Clean Water Act or the Coastal Zone Management Act. Those remain intact.

Ms. CAPPS. Well, that is what I am worried about, because here is a public utility commission also wanting to site an LNG facility that is having to take you to court, and for reasons that you are saying are to clarify the process, but it appears to us that you are fearful you might lose this case, and that you want to go another way, that is, by our energy policy, to do that. I mean, I think the agency is attempting to cut out the Public Utilities Commission of California, out of this decision involving the largest port in the country, and the safety features that would be implicit in allowing FERC—you have one goal in mind. That is to create energy, and the community has a myriad of other very important issues at stake for its constituencies, and you know, here, the fact that you are in a lawsuit with the California Public Utilities Commission, I think is an example of that.

We have a history in California, also, with FERC. We remember when the agency sat by while power companies manipulated Western energy markets. Prices all across the West went through the roof. So you can understand that we are a little bit jaundiced about this process in which we are engaged now. Two facilities wanting to be sited in my Congressional district off the coastline, incredibly complex decisionmaking possibilities, this proposal is a very huge threat to many of my constituents. So I want you to be aware that we have big concerns about FERC's assurances, when you say you are going to try to work with everyone.

And thank you, Mr. Chairman. I yield back.

Mr. HALL. Thank you very much. The Chair recognizes Mr. Murphy, the gentleman from Pennsylvania, for 8 minutes.

Mr. MURPHY. Thank you, Mr. Chairman. I thank the panel, too.

Mr. Secretary, a quick question about nuclear issues, and particularly, Yucca Mountain. When it was announced it was not going to be ready until 2012, instead of 2010. I know the license application has been delayed about a year, but what caused the additional delays?

Mr. GARMAN. The court case that remanded the radiation release standard back to the Environmental Protection Agency for rulemaking is one of the variables over which we have no control, and it will be very difficult, in fact, it will be impossible, I believe, for the Nuclear Regulatory Commission to provide a license for a repository, absent the EPA rulemaking that has to precede. We are working with EPA. It is their hope that they can promulgate such a rule this year. We have sought funding in the budget able to cover the work that we anticipate being able to responsibly spend toward the repository. The administration is focused and supportive of the repository, and we want to move ahead, but in the court case that ensued, we won two thirds of the case, and in terms of the question over the siting of the repository, Yucca Mountain, Nevada is the place, but the court said the EPA has to do a little bit more work on the radiation protection standard, and that creates the delay.

Mr. MURPHY. Okay. Thank you. Now, Mr. Reyes, I have a question about—another nuclear question. The bill included a comprehensive 20 year reauthorization of the Price-Anderson Act, and as you know, no nuclear plants have been constructed, or may be constructed unless the Act is reauthorized. Do you have any comments on Price-Anderson, as drafted, and will it really help us move toward construction of nuclear plants?

Mr. REYES. The information we have from our licensees, that incentives or provisions such as Price-Anderson will assure that they make a decision. You are talking about a financial decision that we are not involved in, but the information we have is that the Price-Anderson is one of the provisions that will make companies make the decision to move forward with applications.

Mr. MURPHY. Well, given that, and the other context of the environment on nuclear energy, we haven't had a new plant in 20 years. What is your opinion on when we might actually see the next nuclear plant develop? I mean, it is a way of having clean air energy, and it is one that is oftentimes used in Europe, and why they have an easier way of meeting treaties to deal with clean air. But we haven't built them in a while, and I would like to know if you have some sense of when we might be ready.

Mr. REYES. We are—we have been told by the industry that in the year 2007, they will be forthcoming with applications to—for siting and construction of power plants.

Mr. MURPHY. All right. Thank you. Mr. Chairman. That is all I have. I will yield back the balance of my time to you. Thank you.

Mr. HALL. All right. We thank you. At this time, the Chair recognizes Mrs. Solis, the gentlelady from California, for 5 minutes.

Ms. SOLIS. Thank you very much. This is a question for Ms. Marlette. Ms. Marlette, back in 1979, the Congress passed a law that established standards for the siting of new LNG terminals. Could you please respond if the FERC will follow those standards that were actually passed by this Congress?

Ms. MARLETTE. I am not sure I know which standards you are referring to.

Ms. SOLIS. The siting.

Ms. MARLETTE. Just—or——

Ms. SOLIS. The siting of LNG facilities.

Ms. MARLETTE. Our siting authority is under section 3 of the Gas Act, and that, as I testified earlier, in the Commission's view, is transportation of gas in foreign commerce into the United States. We site the terminal facilities.

Ms. SOLIS. One of the questions or concerns that I have is, as was mentioned by Congresswoman Capps, is the current problem that we are having in Long Beach—the siting of that particular facility there. The locals there are not in agreement with having it placed there. How is the Federal Government going to secure adequate safety protection around that facility, in terms of firefighters, police, given that the height of terrorism is abound in our country? What kind of assurance is the Federal Government going to apply?

Ms. MARLETTE. The Commission works very closely with, and as Ms. Capps referred to earlier, has an interagency agreement with the Coast Guard and the Department of Transportation, which regulates pipeline safety, and all 3 of the agencies have a role in getting the liquefied natural gas from the tanker, actually, into the terminal, and into the pipeline. Our agency has been working very closely with local fire marshals, and State and local officials, with regard to——

Ms. SOLIS. To do what? Are there plans in place? Are there ongoing plans that we could look at that we could actually see, potential plans that are set already, because that has always been a concern. I know that in many instances, we don't get that information, and the accurate kind of relationships and funding mechanisms that need to be put in place, so that there is security. And it goes beyond just people.

Ms. MARLETTE. Right.

Ms. SOLIS. I am talking about if there are real hazards that could come about, even by accident, accidental hazards that could occur, who is going to incur the costs? Is the Federal Government going to then provide the kind of resources necessary in case something does happen? Because that is a very heavily urban area.

Ms. MARLETTE. I realize your concerns, and what you were talking about is the terminal safety, rather than the tanker safety, it sounds like. I am not the technical expert on the issue, but when the Commission certificates a terminal, there are, I think they are called 3 exclusion zones, and before the Commission certificates, it ensures that the owner/operator of the terminal facility has control of that area, these 3 zones, and has in place safety protections in case anything goes wrong.

Ms. SOLIS. I guess my question is, you know, port security is one thing, but first responders is another, and I would like to see any information that you could provide, then, to this committee, with respect to that.

Ms. MARLETTE. I will see what we have that we can provide to you.

Ms. SOLIS. Okay. My question is for the Assistant Secretary, Mr. Garman. It has to deal with the weatherization programs. Weatherization, as you know, has provided a substantial number of jobs nationwide, and has provided a tremendous amount of savings for many households, particularly in California, and I would like to know, under President Bush's budget, what is going to happen, then, with many of these families that are relying on this particular help with the reduction of almost $11 million? How are we going to provide incentives for low income families to meet any energy-efficient policies that you are setting forth, and I mean immediate, not 5 years down the line. What is happening? What can happen there?

Mr. GARMAN. Thank you, Congresswoman, for the opportunity to make a clarification on the subject. The President's request for the weatherization assistance program is actually up over that level Congress provided last year. The reason for the confusion is that the weatherization assistance program is lumped with other programs, under an appropriations line called weatherization and intergovernmental activities. Some of the intergovernmental activities, which even include some international activities, are down, but the weatherization assistance program, we are seeking to increase modestly from what Congress provided last year, from the level of $228 million to a level of $230 million this year.

Ms. SOLIS. One of the concerns I have is some of the approaches that you might be taking, for example, for low income households to start purchasing appliances that may, you know, require less energy and have more efficient uses, how quickly will support come for those families that are on limited incomes? I mean, you think about it, market rates for the purchase of those appliances are very high, and not very, how could I say, attainable by many of these households. So how realistic are your goals?

Mr. SHIMKUS [presiding]. The gentlewoman's time is far in excess. If you could finish, I would appreciate it.

Ms. SOLIS. I would just like a response.

Mr. GARMAN. Certainly, and you have touched again on a very important thing that we are doing in partnership with the Department of Housing and Urban Development and the Environmental Protection Agency to actually provide incentives and mechanisms for Energy Star appliances in low income households. We think that is very important. We have done some bulk purchasing, so that the low income households can acquire these appliances and put them into use, and start saving energy and money immediately.

Ms. SOLIS. Just provide information on that. Thank you.

Mr. GARMAN. Yes, ma'am.

[The following was received for the record:]

Since 2002, the Department of Energy (DOE) has developed bulk purchasing tools for use by the administrators of low-income housing programs and worked with the Department of Housing and Urban Development (HUD) and the Environmental Protection Agency (EPA) to deliver these tools through DOE's Weatherization Assistance Program, HUD's public assisted housing programs, and through the ENERGY STAR network of partners. The initial phase focused on refrigerators, identified as the technology that could benefit most from a bulk purchasing system. Three refrigerator providers—General Electric, Sears, and Whirlpool—have signed up so far to offer special discounts on refrigerators through the bulk purchase system. Together, these partners account for more than 50 percent of refrigerator sales in the United States.

To date, over 28,000 ENERGY STAR qualified refrigerators have been sold through the bulk purchasing system. Initial feedback indicates participants save about five percent on each refrigerator purchased through the system. Thus, since 2002, weatherization and low-income housing providers have saved more than $750,000 through of this bulk purchasing system. This does not account for additional savings to the administrating agencies from the reductions in overhead cost from refrigerator delivery, removal, and decommissioning, which is included in the purchase cost.

Equallly important are the energy savings to low-income residents. DOE estimates that each ENERGY STAR qualified refrigerator reduces energy use by over 962 kilowatt hours over the life of the refrigerator, which equates to approximately $83 in energy savings to the resident. Overall, the refrigerators sold in the first few years of the program have cumulatively saved residents over $2.3 million in energy costs.

To date, weatherization agencies in Colorado, Ohio, Texas, Washington, West Virginia, Indiana, and Michigan have contracted with the participating vendors for refrigerator bulk purchases. Texas weatherization providers alone have purchased over 7000 refrigerators since 2002. In addition, HUD pilots have been conducted in Colorado, Kentucky, and Illinois. DOE is working to expand this effort to include other products, such as compact fluorescent lamps. In addition,, It will soon make a system available online to make the process easier for many end users and participating vendors.

Mr. SHIMKUS. The Chair now recognizes the chairman of the full committee, Mr. Barton, for 5 minutes.

Chairman BARTON. Thank you, Mr. Chairman. But I have been out. I am going to yield to Dr. Burgess, who has been waiting patiently all morning, and I will ask my questions a little bit later.

Mr. SHIMKUS. The Chair recognizes the gentleman, the other gentleman, from Texas for 5 minutes.

Mr. BURGESS. I thank the chairman for yielding. Mr. Garman, in answer to a question imposed by the subcommittee chairman, Mr. Hall, you suggested that the Trans-Alaska Pipeline is currently pumping at, I believe it was 875,000 gallons per day, and yet had a capacity of about a million—I am sorry, barrels a day, and had a capacity of a million barrels in excess of that? Do you have—if my information is correct, do you have an opinion as to where that other million barrels might come from?

Mr. GARMAN. Yes, sir. At its peak production, if memory serves, and of course, the real expert is in the audience and will correct me if I am not—if I am mistaken about this. But I believe peak production of the Trans-Alaska Pipeline was around 2.1 million barrels a day. The last time I looked, it was down to about 875,000 barrels a day. That leaves throughput capability in excess of a million barrels a day, and of course, that could be supplied by resources, if they are found, but evidence suggests that there are substantial resources there on the coastal plain of the Arctic National Wildlife Refuge. So it would be oil from the Arctic National Wildlife

Refuge coastal plain that could fill that unused capacity in the Trans-Alaska Pipeline.

Mr. BURGESS. Are you satisfied that the energy bill, as proposed, allows for the adequate development of that as an energy source to fill that capacity, that throughput capacity on the pipeline?

Mr. GARMAN. It is very important that we get into the coastal plain, and I say yes, without the full understanding of what the geologic resource actually is, because we have not been able to even look on the coastal plain with modern 3D or 4D seismic techniques, to understand the extent of the resource that may be there. We don't know if it is—if the resource is located in single, large reservoirs, or whether they are distributed throughout the plain, and more knowledge is needed, but the ability to get in and look and understand what the resource is, whether or not it is found, and whether or not production actually ensues is something we are not allowed to even do today. And I have always found it remarkable that Congress has been asked to make this decision without that information, and I think it is very important that we move ahead, and find out what is there, and if there is a resource there, we have infrastructure, in the form of the Trans-Alaska Pipeline, that is in place and ready to bring it to market.

Mr. BURGESS. Well, I thank you for that observation. Now, Ms. Solis, in her line of questioning, suggested that there was a good deal of resistance from local officials about the liquefied natural gas facilities in her port. Are you getting that same type of local resistance, say, from the residents of Kaktovik, Alaska, about that type of research being done on the coastal plain?

Mr. GARMAN. The residents of Kaktovik, Alaska, and I have been there, and spoken to them firsthand on several occasions, are very enthusiastic about the prospect of having that resource moved to market.

Mr. BURGESS. And I thank you for that observation as well, and I agree with you. I hope this committee will do the right thing by the citizens of Kaktovik, Alaska when we consider that part of this bill. In fact, I just don't think we can put enough windmills up off of Nantucket Island to get the same type of energy that we could get out of the Alaska National Wildlife Refuge. But we at least need to do the research. Finally, Mr. Garman, just to ask you, and—acknowledging that I am just a simple country doctor, and relatively new at the energy bill, what would you say, of the 106 proposals that the President put forth in 2001, what are, say, the top 3 things that if we could do those, if we could do those 3 things, what are going to have the greatest impact upon the citizens of this country?

Mr. GARMAN. I am going to try to point not to the single recommendation, but to a group of recommendations, and it closely dovetails with the question that I gave the subcommittee chairman earlier. I think restoring confidence, investor confidence in the electricity infrastructure is extremely important. And the provisions that have been outlined by our FERC witness this morning are extremely important in doing precisely that. PURPA repeal, mandatory enforceability, reliability rules, new technology for the grid, last resort Federal siting authority for high priority transmission lines, open access, PURPA reform as, again, provisions are in the bill. These are all very, very important to help us reduce the impact of American consumers on the loss of electricity and the cost to the economy from blackouts, small regional ones and larger ones as we experienced two summers ago.

Mr. BURGESS. Thank you.

Mr. SHIMKUS. Dr. Burgess, if you would yield. I am going to try to jump on your final 2 minutes, if that was your last question.

Mr. BURGESS. I had one followup for Mr. Reyes on Mr. Murphy's line of questioning about the completion of a new nuclear power plant in this country. Realistically, what would you feel would be the timeline for that, remembering how long it took Comanche Peak to get built down in my district, and how much it went over cost. Have we learned anything in the 20 years since we built the last nuclear power plant? Is there new technology available to us?

Mr. REYES. Yes. Significant changes. First, the regulations were changed to provide for a mechanism that will alleviate the process that you have to go through for approval for the Nuclear Regulatory Commission. And second, on the technical side, the construction now can be done in modules that get assembled onsite. So you have two ingredients to significantly reduce the length of time from decision to actual production of electricity.

Mr. BURGESS. Thank you, and I will yield back, Mr. Chairman.

Mr. SHIMKUS. The gentleman yields back, and assuming the final minute 30 seconds of Dr. Burgess' questions, one quick question for Mr. Garman. Can you just briefly talk about the difficulties DOE has when we do Congressional earmarks that might affect some of your accounts?

Mr. GARMAN. I always answer this question with some trepidation, Mr. Chairman. The energy efficiency and renewable energy account, just to name one account in the Department, has been earmarked last year by about $90 million. The administration has been criticized for reducing that energy efficiency and renewable energy account by some $48 million, but in fact, what we are doing is not asking for those earmarks, and we are asking, actually, for more money for renewable and energy efficiency programs than—money that is actionable against our R&D goals than that—than we received last year from Congress.

Similarly, in the electricity and transmission distribution program, that is another account in the Department that has been heavily earmarked, and as a consequence, they have not been able to undertake some of the electricity reliability R&D and the work on superconductivity that we think is very important for reliability and dependability on the electricity grid.

Mr. SHIMKUS. Thank you. And I want to move expeditiously. I want to recognize Mr. Markey for 5 minutes. I want to mention to the panel that when we go to vote, the plan is to finally adjourn this panel, because we have to reassemble upstairs after lunch, because the Health Subcommittee is going to meet here doing some teleconference on theirs. So if we move expeditiously, Mr. Markey, you are recognized.

Mr. MARKEY. Mr. Garman, yesterday, I asked the Secretary about the DOE's laxity in the promulgation of efficiency standards. There are 22 rulemakings that are still not completed. There is a 13 year delay in one of the 22 rulemakings. It is the simplest, smartest way for America to save energy. It is what we are greatest at. It is ensuring that our appliances, our furnaces, our air conditioners, are the state-of-the-art, using less and less energy, and that is how we are going to put a chill in OPEC. But yet, the Department of Energy isn't doing its job in promulgating these efficiency standards, and we are becoming more and more dependent upon the wrong kinds of energy sources. So what is the problem, Mr. Garman? Why can't your agency do its job and promulgate these regulations to help protect America?

Mr. GARMAN. I will be happy to respond to that, Congressman. Essentially, and a little history is in order, and you know this history very well, in the Energy Policy Act and other acts, Congress set out a timetable for when it wanted to see certain standards promulgated from the Department. After the Department started doing that, there were some complaints from a variety of parties that this process was not very transparent, and this was during the Clinton Administration, when the Congress actually instructed the Department of Energy to stop work on its rulemaking, and imposed a moratorium on further rulemaking, until such time a new process was developed. Again, during the Clinton Administration, that new process was developed, a process called the process improvement rule, and it was adopted by rulemaking. It was a consensus process, involving the energy efficiency advocates and the manufacturers. That process improvement rule set into place, and again, this is the prior administration, a very, very complicated, rigorous, analytical process that is also very, very transparent, with lots of opportunities for public input, public hearings, at every stage——

Mr. MARKEY. All right. I got it. So here is the thing, Mr. Garman, okay? The President has been able to assemble a coalition to surround Iraq, invade Iraq, have elections in Iraq, all in the last 4 years, but you and the Department of Energy, and President Bush, even though he gives these speeches about how much he cares about energy and our independence, he can't figure out in 4 years, President Bush, how to have one new rulemaking on energy efficiency, to reduce our dependence. So how long is it going to take, Mr. Garman, 4 years already? Are you going to drag it out for the whole 8 years, just go into a complete stall, and then hand it over at the end of your term, and say look, we did our best, but our hands were tied?

Mr. GARMAN. Actually——

Mr. MARKEY. Because if that is our policy at the Department of Energy on this, I am afraid for our security of our country, knowing that the projection is dramatically increased energy consumption in the years ahead.

Mr. GARMAN. Again, Congressman, we have instituted 3 new rulemakings during my tenure at the Department. We instituted——

Mr. MARKEY. You have not completed. You have not completed a single new rulemaking in the entire time that the Bush Administration has been in office. We are now in the fifth year.

Mr. GARMAN. Actually, we have completed a number of different items. Let me remind the Congressman that a rulemaking is a two part process. We must first, again, under the provisions that were adopted in the prior administration, come through with a termination. We must first, through a public process, determine how——

Mr. MARKEY. The only thing the Bush Administration did was after the Clinton Administration finished a rulemaking on air conditioning, was for the Bush Administration to try to roll back the rulemaking on air conditioning, which was——

Mr. GARMAN. No, sir. We——

Mr. MARKEY. [continuing] a 20 to 25 percent improvement on the efficiency of air conditioners in America.

Mr. GARMAN. We have——

Mr. MARKEY. That is the—that is where all the energy of this administration——

Mr. GARMAN. We have instituted new——

Mr. MARKEY. [continuing] went to.

Mr. GARMAN. [continuing] rulemaking and commercial air conditioning standards. In fact, yesterday, I signed a Federal Register notice——

Mr. MARKEY. Have you completed any new rulemaking since the Bush Administration took over? Have you commenced and finished any new rulemakings on energy efficiency, on anything, Mr. Garman? Anything?

Mr. GARMAN. I would say that in the first term of the Clinton Administration, they did not complete any, either.

Mr. MARKEY. I am not asking about—I am asking about you, Mr. Garman, the job you are doing, the job that Prosident Bush is doing, to make our country less dependent upon imported oil. Have you completed anything that you started? Anything?

Mr. GARMAN. We have not gone to a final rule.

Mr. MARKEY. A final rule.

Mr. GARMAN. A final rule. And under, again, the process improvement rule, Congressman, a rule takes a minimum of 3 years. A test determination and a rule takes more than 3 years.

Mr. MARKEY. The statute established——

Mr. GARMAN. A term of a President is 4 years. So it is very——

Mr. MARKEY. The statute——

Mr. GARMAN. [continuing] difficult in the first term.

Mr. MARKEY. Mr. Garman, this whole Bush Administration energy policy is a fraud. It is just an attempt to drill in the most pristine area of our country.

Mr. SHIMKUS. The gentleman's time——

Mr. MARKEY. It is nothing more than that.

Mr. SHIMKUS. [continuing] from Massachusetts has expired.

Mr. MARKEY. It is not an energy policy. It is——

Mr. SHIMKUS. I think we understand his——

Mr. MARKEY. [continuing] a fraud.

Mr. SHIMKUS. [continuing] position, and we know that the new Secretary has really addressed this issue of being more expeditious. The Chair recognizes the gentleman from Maryland for 5 minutes.

Mr. WYNN. Thank you, Mr. Chairman. Mr. Reyes, it is my understanding that DOE submitted a construction licensing permit request for Yucca Mountain, and it was rejected by your agency. Is that correct?

Mr. REYES. Not quite. They submitted licensing documents that we reviewed, and we found out that it was—they were not complete. So the application is not scheduled to come in until December of this year.

Mr. WYNN. So we are going to be literally another year before we even get the application process in? Is that what you are saying?

Mr. REYES. That is the information we have from the Department. December 2005.

Mr. WYNN. What—you say they were incomplete. What did they lack? What was lacking in the application?

Mr. REYES. Not all the documents that we require were available.

Mr. WYNN. I pretty much got that. That is what incomplete means. What documents were lacking?

Mr. REYES. Oh, I—we are going to have to provide that for the record, because——

[The following was received for the record:]

During the hearing, I committed to provide the Subcommittee with additional information regarding a ruling by the Commission's Atomic Safety and Licensing Board (Board) on August 31, 2004, with respect to the Department of Energy's (DOE) certification concerning compliance with the so-called "LSN" rule. A copy of that decision is enclosed for your information. This web-based system can be accessed at: http://www.lsnnet.gov. LSN NUMBER: NRC000026709. In particular, the Board determined that DOE failed to provide all relevant documents on the proposed Yucca Mountain repository site in electronic form through the publicly available, web-based Licensing Support Network (LSN). While this ruling affects the timetable for DOE's submission of its application, it does not reflect a substantive resolution of any matter that may ultimately need to be evaluated in such application.

The LSN was created by the Commission to better enable it to issue a licensing decision on DOE's application for a construction authorization for Yucca Mountain in the timeframe provided by the Nuclear Waste Policy Act—three years, with a possible extension to four. To this end, the Commission's regulations regarding the conduct of any hearing on this application establish the LSN as a means to facilitate the discovery of relevant documents by all potential participants in advance of the submission of the application. Accordingly, the regulations require that DOE certify its compliance with the LSN provisions six months before it submits an application, with following dates for the NRC staff and others.

DOE's certification that its documents were available, made on June 30, 2004, was challenged by the State of Nevada, and others. After hearing argument from DOE, the State and the NRC staff, the Board ruled that DOE failed to provide all relevant documents on the LSN. Specifically, the Licensing Board found that the June 30 certification failed to make publically available substantial quantities of documentary material in DOE's possession at the time of certification, and that the manner in which DOE made the material publicly available on its own internet web site failed to satisfy the regulations. To date, DOE has not submitted its recertification. I would note that the certification made by the NRC staff on July 30, 2004—30 days after DOE's certification—was not disputed.

Mr. WYNN. Okay. That would be fine. That would be fine. Let me ask you, in a lot of countries, they extend the life of their fuel supply by reprocessing or enriching their uranium. This extends the life of the fuel supply and reduces nuclear waste. What is the administration's position on reprocessing uranium?

Mr. REYES. In this country, from previous administrations, there is no authority to do reprocessing commercially.

Mr. WYNN. What is this administration's position?

Mr. REYES. There has been no change in that area.

Mr. WYNN. Okay, so this administration is opposed to rep ing?

Mr. REYES. They just haven't changed t administration's——

Mr. WYNN. Okay.

Mr. REYES. [continuing] decision.

Mr. WYNN. All right. Thank you. Mr. Garman, some time ago, a couple decades ago, President Kennedy said we are going to get to the Moon in one decade, 10 years. I am very pleased with the increase in hydrogen funding from 9.8 percent. What I think the public needs to know to kind of get on board with the hydrogen economy is what is the timetable for implementing a hydrogen economy, the commercial utilization of hydrogen fuel cell vehicles? I would like you to also answer the same question with respect to wind and solar energy.

Mr. GARMAN. The President, as he outlined in his State of the Union, expressed the hope that a child born today would be able to purchase and drive a fuel cell vehicle when he was able to be licensed to drive. Our hope is that, and our expectation, and our R&D program is built on the notion of a commercialization decision by industry in 2015 that could lead to vehicles, affordable vehicles, in the market, in showrooms, by 2020.

Mr. WYNN. 2020 is the goal.

Mr. GARMAN. That is the timeframe that we anticipate. If we are meeting our technical targets.

Mr. WYNN. Okay. Thank you.

Mr. GARMAN. And thus far, we have done so.

Mr. WYNN. Okay. You ought to get that out a little bit more. I think the public would buy in a little more. What about wind and solar?

Mr. GARMAN. Today, solar powered photovoltaic electricity comes in at about $0.20 to $0.25 per kilowatt-hour. That is the bad news. The average retail residential rate is closer to $0.07 or $0.08 a kilowatt-hour, so it is not yet competitive. However, the good news is that in 1980, that price was $2.00 per kilowatt-hour, so our R&D program has brought the cost curves of solar down. We anticipate being able to deliver solar photovoltaic at $0.06 a kilowatt-hour in the year 2020. That is our R&D goal, and that would make it very cost competitive to grid-delivered electricity.

Mr. WYNN. Is there anything we could do to accelerate that?

Mr. GARMAN. The President has asked, again, for a very robust budget in the solar energy program of—$83 million. We believe we have an R&D plan that delivers—it may be possible to accelerate that a bit, but it will take some time. With respect to wind, wind is being increasingly competitive in certain areas of the country. The difficulty is often transmission, to bring that resource to marketplace. Wind, at its——

Mr. WYNN. Can I interject? In terms of transmission, are you supportive of changes in tax policy to encourage increased transmission?

Mr. GARMAN. At the present time, the administration supports the $6.6 billion in tax incentives contained in the President's budget for 2003, and that does not include tax incentives for transmission. We believe that a stable and predictable regulatory regime will bring investment that is needed into the transmission system.

Mr. WYNN. Thank you, sir.

Mr. SHIMKUS. The gentleman's time has expired. We are going to dismiss this panel, thank you for your patience, and reconvene in 10 minutes up in room 2322, on the third floor.

[Whereupon, at 11:33 a.m., the subcommittee recessed, to reconvene at 11:57 a.m., the same day, in room 2322 of the Rayburn House Office Building.]

Mr. HALL. Okay. We will come to order. We have an excellent panel two, and you have sat through the agony of hearing all of our opening statements and questions and answers, and thank you for staying.

And we have on this panel Guy Caruso, who in February, President Bush nominated him to the position of Administrator for the EIA. He has acquired over 30 years of energy experience, with a particular emphasis on topics relating to energy markets, policy, and security. Just what we need. Mr. Caruso was Director of the Office of Oil and Natural Gas, and many other things, and we are honored to have him here today.

And we are also happy to have Marilyn Showalter, who Governor Locke appointed as Chairwoman of the Washington UTC in February 1999, and she was elected President of the National Association of Regulatory Utility Commissioners, and she is also a past President of the Western Conference of Public Service Commissioners, and what I am impressed is, she has State work, too, State background. She worked for a State House of Representatives for 5 years as a budget counsel, chief clerk in 1994, deputy prosecuting attorney in King County. She has just—she has been there, too, and we are happy to have you here today.

I don't know how much time I can allot myself to recognize Frank Murkowski, and I can talk all day on him, but he is Governor. Thank you for your time on the committee, and for all you have done for energy and chairing the major committees over there, and for helping to push this thing for the last several years. We are going to try to get it through this time.

Of course, my own fellow Texan, Vic, we are happy to have you here. He joined the Texas Railroad Commission, which is a major entity that governs energy and oil and gas, and he is elected by his colleagues as Chairman of the Agency in September. He is Chairman of the Texas Energy Planning Council, and whose mission is to create a comprehensive energy plan for the State of Texas. All of your background is very useful, needed rights now, and you may just be the one guy who can help us push it over and get those last 2 votes in the Senate that we have to have. New blood is always needed up here.

And we recognize you at this time, Mr. Caruso. I would be glad to recognize you for—I hope you will stay fairly close to 5 minutes in presentation, if you can, but if you can't, you don't have to. We want to hear from you. Thank you.

STATEMENTS OF GUY F. CARUSO, ADMINISTRATOR, ENERGY INFORMATION ADMINISTRATION; HON. FRANK H. MURKOWSKI, GOVERNOR, STATE OF ALASKA, ON BEHALF OF THE NATIONAL GOVERNORS ASSOCIATION; HON. MARILYN SHOWALTER, PRESIDENT, NATIONAL ASSOCIATION OF REGULATORY UTILITY COMMISSIONERS; AND HON. VICTOR CARRILLO, CHAIRMAN, RAILROAD COMMISSION OF TEXAS

Mr. CARUSO. I will try, Mr. Chairman, and thank you very much. We appreciate the opportunity to present the Energy Information Administration's long-term outlook for energy markets as are depicted in the charts that we have for you.

As always, our long-term outlook is based on current policies, rules, and regulations, and EIA, as you know, is a policy neutral organization, so that what I will be describing today is where our energy outlook is headed if we continue on the path that we are on now. These are the outcomes we can expect if we don't change rules, regulations, and policies that were in place as of late last year.

The path we are on is toward increased U.S. energy import dependency, because total primary energy consumption is expected to grow by one third over the next 20 years to 2025, and, because demand increases more rapidly than domestic supply, imports will supply a growing share of that demand. We expect net imports to account for about 38 percent of total energy by 2025. That is up from 27 percent in 2003, as shown in this chart. Of course, we all know about oil imports. That is a subject that we talk about a lot, but in this outlook, we also show rapidly increasing natural gas imports, mainly in the form of LNG, but we are using energy more efficiently. It isn't all bad news. Energy demand is growing at about one half the rate of GDP, so technology and structural change are making a difference. Most of that growth in the next 20 years, or at least a leading growth, will be in the commercial and transportation sectors. Electricity, particularly for computers, electronic equipment, and appliances, is an important component in the residential and commercial area. But for transportation, of course, the growth is predominantly in petroleum, with the largest growth in the light duty vehicles and heavy trucks, but also aircraft.

In turning to oil, this next chart shows how our import dependency will grow over the next 20 years. We think it will reach 68 percent net import dependency by 2025, and that is up from about 56 percent in 2003. Our projections on oil assume prices will come down from where they are now, to about $25 by 2010, as new production becomes available, although prices will rise again to about $30 under this assumption by 2025. And we recognize that there is a great deal of uncertainty with respect to oil prices in particular. The resource and the investment decisions that need to be made, that Mr. Garman referred to this morning, and the geopolitical trends that we have been living with now, really since 1973, continue to increase this uncertainty.

So we do, in the full report, have four other oil price cases, as well as the reference case, including one lower one and three higher ones. So we do show what the implications might be if, indeed, we keep on the very high oil price level that we are at today. Now, domestic supply of petroleum will actually be lower in 2025 than it is today, if we keep on the path we are on, even though we will get some increase in supplies over the next several years from the deep water finds in the Gulf of Mexico; the decline rates will then set in, and we expect to have production lower by 2025.

At the same time, demand is growing for petroleum, from about 20 million barrels a day today to about 28 million barrels a day in 2025, and transportation accounts for about two thirds of the demand, with the industrial sector accounting for much of the remainder. Therefore, there are very limited opportunities to switch out of oil because of that pattern of use.

Now, if we turn to natural gas, I mentioned that net imports will grow, and this next chart shows that we are on track to increase our imports sharply during the next 20 years, mainly in the form of LNG, because, if our projections are correct, Canadian gas, which has been our main supplier of imports, is going to decline.

We will be increasing demand for natural gas by about 40 percent over the next 20 years. That means we are going to need more than 8 trillion cubic feet of new gas supply. And during that time, we only see domestic gas supplies going from about 19 to 22 tcf, therefore, there is a gap that will have to be filled by imports, as well as the expectation that unconventional domestic supplies and the natural gas from Canada will be produced. Even with that, we will need substantial imports of LNG. As shown in the chart inset, we expect LNG to go from only 400 billion cubic feet on a net basis in 2003, to 6.4 trillion cubic feet in 2025. Just an enormous increase, which will require new siting facilities that were talked about in the first panel, for LNG regasification, not only in the Gulf of Mexico, but elsewhere in the United States, and even some offshore sites like the Bahamas and Baja, California, and Mexico. We think that with this rapid increase in LNG, it will put some downward pressure on natural gas prices, so our projections are that gas prices will come down from about $6 per thousand cubic feet today, to below $4 by 2010. But then, because of the increased demand, we will see prices start rising again by 2025.

Turning to electricity, we expect generation from both gas and coal to increase. Coal will be the primary source, about 50 percent, but gas will grow very fast as well. And nuclear capacity, generating capacity, will increase slightly, but we don't, in our long-term forecast, expect any new nuclear plants to be built, given present economics and rules and regulations.

So, Mr. Chairman, with that, I would just conclude by saying, to put this in a broader context, not only will the United States be more dependent on oil and natural gas imports over the next 20 years, but we see that occurring particularly in the developing countries of Asia as well, so that we see increasing [illegible] import dependency, not only in the United States, but in incr[illegible]gly [illegible] idly growing economies like China, India, and ot[illegible] us of [illegible]veloping Asia, which again, have a number of imp[illegible] implications for us in this country and glo[illegible]ly.

Thank you very much, once again, for inv[illegible]

[The prepared statement of Guy Caruso [illegible]

PREPARED STATEMENT OF GUY CARUSO, ADMINISTRATOR, ENERGY INFORMATION ADMINISTRATION, U.S. DEPARTMENT OF ENERGY

Mr. Chairman and Members of the Committee: I appreciate the opportunity to appear before you today to discuss the long-term outlook for energy markets in the United States and for the world.

The Energy Information Administration (EIA) is an independent statistical and analytical agency within the Department of Energy. We are charged with providing objective, timely, and relevant data, analysis, and projections for the use of the Department of Energy, other government agencies, the U.S. Congress, and the public. We do not take positions on policy issues, but we do produce data and analysis reports that are meant to help policy makers in their energy policy deliberations. Because we have an element of statutory independence with respect to the analyses, our views are strictly those of EIA and should not be construed as representing those of the Department, the Administration, or any other organization. However, EIA's baseline projections on energy trends are widely used by government agencies, the private sector, and academia for their own energy analyses.

The *Annual Energy Outlook* provides projections and analysis of domestic energy consumption, supply, prices, and energy-related carbon dioxide emissions through 2025. *Annual Energy Outlook 2005* (*AEO2005*) is based on Federal and State laws and regulations in effect on October 31, 2004. The potential impacts of pending or proposed legislation, regulations, and standards' or of sections of legislation that have been enacted but that require funds or implementing regulations that have not been provided or specified—are not reflected in the projections. *AEO2005* explicitly includes the impact of the recently enacted American Jobs Creation Act of 2004, the Military Construction Appropriations Act for Fiscal Year 2005, and the Working Families Tax Relief Act of 2004. *AEO2005* does not include the potential impact of proposed regulations such as the Environmental Protection Agency's (EPA) Clean Air Interstate and Clean Air Mercury rules.

The U.S. projections in this testimony are based on the *AEO2005*, which will be published later this week. In addition to the long-term U.S. forecast of energy markets, EIA also prepares a longterm outlook for world energy markets, which is published annually in the *International Energy Outlook* (*IEO*). The latest edition of this report, the *IEO2004*, was published in April 2004. These projections are not meant to be an exact prediction of the future, but represent a likely energy future, given technological and demographic trends, current laws and regulations, and consumer behavior as derived from known data. EIA recognizes that projections of energy markets are highly uncertain and subject to many random events that cannot be foreseen such as weather, political disruptions, and technological breakthroughs. In addition to these phenomena, long-term trends in technology development, demographics, economic growth, and energy resources may evolve along a different path than expected in the projections. Both the *AEO2005* and the *IEO2004* include a large number of alternative cases intended to examine these uncertainties. *AEO2005* and *IEO2004* provide integrated projections of U.S. and world energy market trends for roughly the next two decades. The following discussion summarizes the highlights from *AEO2005* for the major categories of U.S. energy prices, demand, and supply. The *AEO2005* discussion also includes the findings from some alternative cases. The *AEO2005* discussion is followed by a discussion of the key trends in world energy markets projected in *IEO2004*. U.S.

ENERGY PRICES

In the *AEO2005* reference case, the annual average world oil price[1] increases from $27.73 per barrel (2003 dollars) in 2003 ($4.64 per million Btu) to $35.00 per barrel in 2004 ($5.86 per million Btu) and then declines to $25.00 per barrel in 2010 ($4.18 per million Btu) as new supplies enter the market. It then rises slowly to $30.31 per barrel in 2025 ($5.07 per million Btu) [Figure 1]. In nominal dollars, the average world oil price is about $52 per barrel in 2025 ($8.70 per million Btu).

There is a great deal of uncertainty about the size and availability of crude oil resources, particularly conventional resources, the adequacy of investment capital, and geopolitical trends. For example, the *AEO2005* reference case assumes that world crude oil prices will decline as growth in consumption slows and producers increase their productive capacity and output in response to current high prices; however, the October 2004 oil futures prices for West Texas Intermediate crude oil (WTI) on the New York Mercantile Exchange (NYMEX) implies that the average annual oil price in 2005 will exceed its 2004 level before falling back somewhat, to levels that still would be above those projected in the reference case. To evaluate this uncertainty about world crude oil prices, the *AEO2005* includes other cases based on alternative world crude oil price paths. The world oil price cases in *AEO2005* are designed to address the uncertainty about the market behavior of OPEC. They are not intended to span the full range of possible outcomes.

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[1] World oil prices in *AEO2005* are defined based on the average refiner acquisition cost of imported oil to the United States (IRAC). The IRAC price tends to be a few dollars less than the widely-cited West Texas Intermediate (WTI) spot price and has been as much as six dollars per barrel lower than the WTI in recent months. For the first 11 months of 2004, WTI averaged $41.31 per barrel ($7.12 per million Btu), while IRAC averaged $36.28 per barrel (nominal dollars) ($6.26 per million Btu).

The alternative world oil price cases examined include:

- High A world oil price case. Prices are projected to remain at about $34 per barrel (2003 dollars) through 2015 and then increase on average by 0.9 percent per year, to more than $39 per barrel in 2025.
- High B world oil price case. Projected prices continue to increase through 2005 to $44 dollars per barrel (2003 dollars), fall to $37 in 2010, and rise to $48 dollars per barrel by 2025.
- Low world oil price case. Prices are projected to decline from their high in 2004 to $21 per barrel (2003 dollars) in 2009 and to remain at that level out to 2025.

Figure 2 provides a comparison of the reference case and the high B world oil price case. The implications of these alternative cases will be discussed in later in the testimony.

In the *AEO2005*, average wellhead prices for natural gas in the United States are projected to decrease from $4.98 per thousand cubic feet (2003 dollars) in 2003 ($4.84 per million Btu) to $3.64 per thousand cubic feet in 2010 ($3.54 per million Btu) as the availability of new import sources and increased drilling expands available supply. After 2010, wellhead prices are projected to increase gradually, reaching $4.79 per thousand cubic feet in 2025 ($4.67 per million Btu) (about $8.20 per thousand cubic feet or $7.95 per million Btu in nominal dollars). Growth in liquefied natural gas (LNG) imports, Alaska production, and lower-48 production from nonconventional sources is not expected to increase sufficiently to offset the impacts of resource depletion and increased demand in the lower 48 states.

In *AEO2005*, the combination of more moderate increases in coal production, expected improvements in mine productivity, and a continuing shift to low-cost coal from the Powder River Basin in Wyoming leads to a gradual decline in the average minemouth price, to approximately $17 per ton (2003 dollars) shortly after 2010 ($0.86 per million Btu). The price is projected to remain nearly constant between 2010 and 2020, increasing after 2020 as rising natural gas prices and the need for baseload generating capacity lead to the construction of many new coal-fired generating plants. By 2025, the average minemouth price is projected to be $18.26 per ton ($0.91 per million Btu). The *AEO2005* projection is equivalent to an average minemouth coal price of $31.25 per ton in nominal dollars in 2025 ($1.56 per million Btu).

Average delivered electricity prices are projected to decline from 7.4 cents per kilowatthour (2003 dollars) in 2003 ($21.68 per million Btu) to a low of 6.6 cents per kilowatthour in 2011 ($19.34 per million Btu) as a result of an increasingly competitive generation market and a decline in natural gas prices. After 2011, average real electricity prices are projected to increase, reaching 7.3 cents per kilowatthour in 2025 ($21.38 per million Btu) (equivalent to 12.5 cents per kilowatthour or $36.61 per million Btu in nominal dollars).

U.S. ENERGY CONSUMPTION

Total energy consumption is projected to grow at about one-half the rate (1.4 percent per year) of gross domestic product (GDP) with the strongest growth in energy consumption for electricity generation and commercial and transportation uses. Delivered residential energy consumption is projected to grow from 11.6 quadrillion British thermal units (Btu) in 2003 to 14.3 quadrillion Btu in 2025 (0.9 percent per year) [Figure 3]. This growth is consistent with population growth and household formation. The most rapid growth in residential energy demand in *AEO2005* is projected to be in the demand for electricity used to power computers, electronic equipment, and appliances. Delivered commercial energy consumption is projected to grow at a more rapid average annual rate of 1.9 percent between 20 [illegible] 2[illegible], reaching 12.5 quadrillion Btu in 2025, consistent with grow[illegible] in floorspace. The most rapid increase in commercial energy d[illegible] electricity used for computers, office equipment, telecommu[illegible] neous small appliances.

Delivered industrial energy consumption in *AE*[illegible] quadrillion Btu in 2025, growing at an average rate [illegible]

2003 and 2025, as efficiency improvements in the use of energy only partially offset the impact of growth in manufacturing output. Transportation energy demand is expected to increase from 27.1 quadrillion Btu in 2003 to 40.0 quadrillion Btu in 2025, a growth rate of 1.8 percent per year. The largest demand growth occurs in light-duty vehicles and accounts for about 60 percent of the total increase in transportation energy demand by 2025, followed by heavy truck travel (12 percent of total growth) and air travel (12 percent of total growth).

The reference case includes the effects of several policies aimed at increasing energy efficiency in both end-use technologies and supply technologies, including minimum efficiency standards and voluntary energy savings programs. However, as noted previously, the projections in the AEO are based on existing Federal and State laws and regulations in effect on October 31, 2004. The impact on energy consumption of efficiency improvement could be greater than what is shown in the reference case. Figure 4 compares energy consumption in three cases to illustrate this point. The frozen technology case assumes no increase in efficiency beyond that available in 2005. By 2025, 5 percent more energy (7.6 quads) is required than in the reference case. The high technology case assumes that the most-energy efficiency technologies are available earlier with lower costs and higher efficiencies. By 2025, total energy consumption is 7 quads lower in the high efficiency case when compared with the reference case.

Total petroleum demand is projected to grow at an average annual rate of 1.5 percent in the *AEO2005* reference case forecast, from 20.0 million barrels per day in 2003 to 27.9 million barrels per day in 2025 [Figure 5] led by growth in transportation uses, which account for 67 percent of total petroleum demand in 2003, increasing to 71 percent in 2025. Improvements in the efficiency of vehicles, planes, and ships are more than offset by growth in travel.

Total demand for natural gas is also projected to increase at an average annual rate of 1.5 percent from 2003 to 2025. About 75 percent of the growth in gas demand from 2003 to 2025 results from increased use in power generation and in industrial applications.

Total coal consumption is projected to increase from 1,095 million short tons in 2003 to 1,508 million short tons in 2025, growing by 1.5 percent per year. About 90 percent of the coal is currently used for electricity generation. Coal remains the primary fuel for generation and its share of generation is expected to remain about 50 percent between 2003 and 2025.

Total electricity consumption, including both purchases from electric power producers and onsite generation, is projected to grow from 3,657 billion kilowatthours in 2003 to 5,467 billion kilowatthours in 2025, increasing at an average rate of 1.8 percent per year. Rapid growth in electricity use for computers, office equipment, and a variety of electrical appliances in the enduse sectors is partially offset in the *AEO2005* forecast by improved efficiency in these and other, more traditional electrical applications and by slower growth in electricity demand in the industrial sector.

Total marketed renewable fuel consumption, including ethanol for gasoline blending, is projected to grow by 1.5 percent per year in *AEO2005*, from 6.1 quadrillion Btu in 2003 to 8.5 quadrillion Btu in 2025, as a result of State mandates for renewable electricity generation and the effect of production tax credits. About 60 percent of the projected demand for renewables in 2025 is for grid-related electricity generation (including combined heat and power), and the rest is for dispersed heating and cooling, industrial uses, and fuel blending.

U.S. ENERGY INTENSITY

Energy intensity, as measured by primary energy use per dollar of GDP (2000 dollars), is projected to decline at an average annual rate of 1.6 percent in the *AEO2005*, with efficiency gains and structural shifts in the economy offsetting growth in demand for energy services [Figure 6]. The projected rate of energy intensity decline in *AEO2005* falls between the historical averages of 2.3 percent per year from 1970 to 1986, when energy prices increased in real terms, and 0.7 percent per year from 1986 to 1992, when energy prices were generally falling. Between 1992 and 2003, energy intensity has declined on average by 1.9 percent per year: During this period, the role of energy-intensive industries in the U.S. economy fell sharply. Energy-intensive industries' share of industrial output declined 1.3 percent per year from 1992 to 2003. In the *AEO2005* forecast, the energy-intensive industries share of total industrial output is projected to continue declining but at a slower rate of 0.8 percent per year, which leads to the projected slower annual rate of reduction in energy intensity.

Historically, energy use per person has varied over time with the level of economic growth, weather conditions, and energy prices, among many other factors. During the late 1970s and early 1980s, energy consumption per capita fell in response to high energy prices and weak economic growth. Starting in the late 1980s and lasting through the mid-1990s, energy consumption per capita increased with declining energy prices and strong economic growth. Per capita energy use is projected to increase in *AEO2005*, with growth in demand for energy services only partially offset by efficiency gains. Per capita energy use is expected to increase by an average of 0.5 percent per year between 2003 and 2025 in *AEO2005*.

U.S. ENERGY PRODUCTION AND IMPORTS

Total energy consumption is expected to increase more rapidly than domestic energy supply through 2025. As a result, net imports of energy are projected to meet a growing share of energy demand. Net imports are expected to constitute 38 percent of total U.S. energy consumption in 2025, up from 27 percent in 2003 [Figure 7].

Petroleum. Projected U.S. crude oil production increases from 5.7 million barrels per day in 2003 to a peak of 6.2 million barrels per day in 2009 as a result of increased production offshore, predominantly in the deep waters of the Gulf of Mexico. Beginning in 2010, U.S. crude oil production is expected to start declining, falling to 4.7 million barrels per day in 2025. Total domestic petroleum supply (crude oil, natural gas plant liquids, refinery processing gains, and other refinery inputs) follows the same pattern as crude oil production in the *AEO2005* forecast, increasing from 9.1 million barrels per day in 2003 to a peak of 9.8 million barrels per day in 2009, then declining to 8.8 million barrels per day in 2025 [Figure 8].

In 2025, net petroleum imports, including both crude oil and refined products (on the basis of barrels per day), are expected to account for 68 percent of demand, up from 56 percent in 2003. Despite an expected increase in domestic refinery distillation capacity, net refined petroleum product imports account for a growing proportion of total net imports, increasing from 14 percent in 2003 to 16 percent in 2025.

In the U.S. energy markets, the transportation section consumes about two-thirds of all petroleum products and the industrial section about one-quarter. The remaining 10 percent is divided among the residential, commercial, and electric power sectors. With limited opportunities for fuel switching in the transportation and industrial sectors, large price-induced changes in U.S. petroleum consumption are unlikely, unless changes in petroleum prices are very large or there are significant changes in the efficiencies of petroleum-using equipment. Figure 9 compares the impact of the *AEO2005* reference and high B world oil price cases on U.S. oil production, consumption, and imports.

Higher crude oil prices spur greater exploration and development of domestic oil supplies, reduce demand for petroleum, and slow the growth of oil imports in the high B world oil price case compared to the reference case. Total domestic petroleum supply in 2025 is projected to increase by 2.2 million barrels a day (25 percent) higher in the high B case than in the reference case. Production in the high B case includes 1.2 million barrels per day in 2025 of synthetic petroleum fuel produced from coal and natural gas (Figure 10). Total net imports in 2025, including crude oil and refined products, are reduced from 19.1 million barrels a day in the reference case to 15.2 million barrels per day in the high B case. As a result, the projected import share of total U.S. petroleum demand in 2025 is 58 percent in the high B world oil price case, compared with 68 percent in the reference case. In 2003, the import share of U.S. petroleum demand was 56 percent.

Natural Gas. Domestic natural gas production is projected to increase from 19.1 trillion cubic feet in 2003 to 21.8 trillion cubic feet in 2025 in *AEO2005* [Figure 11]. Lower 48 onshore natural gas production is projected to increase from 13.9 trillion cubic feet in 2003 to a peak of 15.7 trillion cubic feet in 2012 before falling to 14.7 trillion cubic feet in 2025. Lower 48 offshore production, which was 4.7 trillion cubic feet in 2003, is projected to increase in the near term (to 5.3 trillion cubic feet by 2014) because of the expected development of some large deepwater fields, including Mad Dog, Entrada, and Thunder Horse. After 2014, offshore production is projected to decline to about 4.9 trillion cubic feet in 2025.

Growth in U.S. natural gas supplies will depend on [illegible] ional do[illegible]stic production, natural gas from Alaska, and imports of L[illegible] unconventional natural gas production is projected to [illegible] et in 2003 to 8.6 trillion cubic feet in 2025. With con[illegible] pipeline in 2016, total Alaskan produ[illegible] cubic feet in 2003 to 2.2 trillion cubic [illegible]

Three of the four existing U.S. LNG terminals (Cove Point, Maryland; Elba Island, Georgia; and Lake Charles, Louisiana) are all expected to expand by 2007, and additional facilities are expected to be built in the lower-48 States, serving the Gulf, Mid-Atlantic, and South Atlantic States, including a new facility in the Bahamas serving Florida via a pipeline. Another facility is projected to be built in Baja California, Mexico, serving a portion of the California market. Total net LNG imports in the United States and the Bahamas are projected to increase from 0.4 trillion cubic feet in 2003 to 6.4 trillion cubic feet in 2025.

Net Canadian imports are expected to decline from 2003 levels of 3.1 trillion cubic feet to about 2.5 trillion cubic feet by 2009. After 2010, Canadian natural gas imports in *AEO2005* increase to 3.0 trillion cubic feet in 2015 as a result of rising natural gas prices, the introduction of gas from the Mackenzie Delta, and increased production from coalbeds. After 2015, because of reserve depletion effects and growing domestic demand in Canada, net U.S. imports are projected to decline to 2.6 trillion cubic feet in 2025.

Coal. As domestic coal demand grows in *AEO2005*, U.S. coal production is projected to increase at an average rate of 1.5 percent per year, from 1,083 million short tons in 2003 to 1,488 million short tons in 2025. Production from mines west of the Mississippi River is expected toprovide the largest share of the incremental coal production. In 2025, nearly two-thirds of coal production is projected to originate from the western States [Figure 12].

U.S. ELECTRICITY GENERATION

In *AEO2005*, generation from both natural gas and coal is projected to increase through 2025 to meet growing demand for electricity. *AEO2005* projects that 1,406 billion kilowatthours of electricity (including generation in the end-use sectors) will be generated from natural gas in 2025, more than twice the 2003 level of about 630 billion kilowatthours [Figure 13]. The natural gas share of electricity generation is projected to increase from 16 percent in 2003 to 24 percent in 2025. Generation from coal is projected to grow from about 1,970 billion kilowatthours in 2003 to 2,890 billion kilowatthours in 2025, with the share decreasing slightly from 51 percent in 2003 to 50 percent in 2025. Between 2004 and 2025, *AEO2005* projects that 87 gigawatts of new coal-fired generating capacity will be constructed.

Nuclear generating capacity in the *AEO2005* is projected to increase from 99.2 gigawatts in 2003 to 102.7 gigawatts in 2025 as a result of uprates of existing plants between 2003 and 2025. All existing nuclear plants are projected to continue to operate, but EIA projects that no new plants will become operational between 2003 and 2025. Total nuclear generation is projected to grow from 764 billion kilowatthours in 2003 to 830 billion kilowatthours in 2025 in *AEO2005*. The share of electricity generated from nuclear is projected to decline from 20 percent in 2003 to 14 percent in 2025.

The *AEO2005* reference case assumptions for the cost and performance characteristics of new nuclear technologies are based on cost estimates by government and industry analysts, allowing for uncertainties about new, unproven designs. Two advanced nuclear cost cases analyze the sensitivity of the projections to lower costs for new nuclear power plants. The advanced nuclear cost case assumes capital and operating costs 20 percent below the reference case in 2025, reflecting a 28-percent reduction in overnight capital costs from 2005 to 2025. The vendor estimate case assumes reductions relative to the reference case of 18 percent initially and 38 percent by 2025. These costs are consistent with estimates from British Nuclear Fuels Limited for the manufacture of its advanced pressurized-water reactor (AP1000). Cost and performance characteristics for all other technologies are assumed to be the same as those in the reference case.

Projected nuclear generating costs in the advanced nuclear cost cases are competitive with the generating costs projected for new coal- and natural-gas-fired units toward the end of the projection period (Figure 14). In the advanced nuclear case, 7 gigawatts of new nuclear capacity is added by 2025, while the greater reductions in the vendor estimate case bring on 25 gigawatts by 2025. The additional nuclear capacity displaces primarily new coal capacity.

Renewable technologies are projected to grow slowly because they are relatively capital intensive and they do not compete broadly with traditional fossil-fired generation. Where enacted, State renewable portfolio standards, which specify a minimum share of generation or sales from renewable sources, are included in the forecast. *AEO2005* includes the extension of the Federal production tax credit (PTC) for wind and biomass through December 31, 2005, as indicated in H.R. 1308, the Working Families Tax Relief Act of 2004. Total renewable generation in *AEO2005*, including combined heat and power generation, is projected to increase from 359 billion kilowatthours in 2003 to 489 billion kilowatthours in 2025, increasing 1.4 percent per year.

Current law has the PTC expiring at the end of 2005; however, since the enactment of the PTC in 1992, several previously established sunset dates have come and gone. In each instance, the credit has been extended, generally several months after expiration, with retroactive application. Thus, extension beyond the current 2005 expiration seems well within the realm of possibility. Given the uncertainty regarding the long-term fate of the PTC, EIA examined one possible outcome for an extension of the PTC. This case is not meant to represent any expectation about future policy decisions regarding the PTC, but rather to provide a useful indication of the impacts of the PTC program on future energy markets relative to the reference forecast, which assumes no extension of the PTC beyond 2005. This case is based on an "as-is" extension to 2015 of the expanded renewable electricity PTC program, as expanded by American Jobs Creation Act of 2004 to facilities placed in service by the end of 2015.

Figure 15 summarizes the impact of the extension of the PTC to 2015 in this alternative case. Wind power sees the largest projected gains, although landfill gas, geothermal, and dedicated, open-loop biomass resources all are projected to see some capacity expansion. Installed wind capacity in 2015 is almost 63 gigawatts in the PTC extension case, compared to 9.3 gigawatts in the reference case. This 580 percent increase in capacity results in a 650 percent increase in generation from the reference case projection for 2015 (206 billion kilowatthours in the PTC extension case compared to 27 billion kilowatthours in the reference case).

U.S. CARBON DIOXIDE EMISSIONS

Carbon dioxide emissions from energy use are projected to increase from 5,789 million metric tons in 2003 to 8,062 million metric tons in 2025 in *AEO2005*, an average annual increase of 1.5 percent [Figure 16]. The carbon dioxide emissions intensity of the U.S. economy is projected to fall from 558 metric tons per million dollars of GDP in 2003 to 397 metric tons per million dollars of GDP in 2025, an average decline of 1.5 percent per year. Projected increases in carbon dioxide emissions primarily result from continued reliance on coal for electricity generation and on petroleum fuels in the transportation sector.

THE INTERNATIONAL OUTLOOK TO 2025

IEO2004 includes projections of regional energy consumption, energy consumption by primary fuel, electricity consumption, carbon dioxide emissions, nuclear generating capacity, and international coal trade flows. World oil production and natural gas production forecasts are also included in the report. The *IEO2004* projects strong growth for worldwide energy demand over the projection period ending in 2025. Total world consumption of marketed energy is expected to expand by 54 percent, from 404 quadrillion Btu in 2001 to 623 quadrillion Btu in 2025 [Figure 17].

World Energy Consumption by Region. The *IEO2004* reference case outlook shows strongest growth in energy consumption among the developing nations of the world [Figure 18]. The fastest growth is projected for the nations of developing Asia, including China and India, where robust economic growth accompanies the increase in energy consumption over the forecast period. GDP in developing Asia is expected to expand at an average annual rate of 5.1 percent, compared with 3.0 percent per year for the world as a whole. With such strong growth in GDP, demand for energy in developing Asia is projected to double over the forecast, accounting for 40 percent of the total projected increment in world energy consumption and 70 percent of the increment for the developing world alone. Energy demand increases by 3.0 percent per year in developing Asia as a whole and by 3.5 percent per year in China and 3.2 percent per year in India.

Developing world energy demand is projected to rise strongly outside of Asia, as well. In the Middle East, energy use increases by an average of 2.1 percent per year between 2001 and 2025; 2.3 percent per year in Africa, and 2.4 percent per year in Central and South America.

In contrast to the developing world, slower growth in energy demand is projected for the industrialized world, averaging 1.2 percent per year over the forecast period. Generally, the nations of the industrialized world can be characterized as mat
energy consumers with comparatively slow population growth. Gains in energy
ciency and movement away from energy-intensive manufacturing to service in
tries result in the lower growth in energy consumption. In the transitio
mies of Eastern Europe and the former Soviet Union (EE/FSU) energy
projected to grow by 1.5 percent per year in the *IEO2004* reference
declining population growth in this region, combined with strong p

energy efficiency as old, inefficient equipment is replaced, leads to the projection of more modest growth in energy use than in the developing world.

World Energy Consumption by Energy Source. Oil continues to be the world's dominant energy source. Oil's share of world energy remains unchanged at 39 percent over the forecast period. China and the other countries of developing Asia account for much of the increase in oil use in the developing world and, indeed, in the world as a whole [Figure 19]. Developing Asia oil consumption is expected to grow from 14.8 million barrels per day in 2001 to 31.6 million barrels per day in 2025, an increase of 16.9 million barrels per day, representing 63 percent of the increment in oil use in the developing world and 39 percent of the total world increment in oil use over the forecast period. In the industrialized world, increases in oil use are projected primarily in the transportation sector. In the developing world, demand for oil increases for all end uses, as countries replace non-marketed fuels used for home heating and cooking with diesel generators and for industrial petroleum feedstocks.

Natural gas demand is projected to show an average annual growth of 2.2 percent over the forecast period [Figure 20]. Gas is seen as a desirable option for electricity, given its efficiency relative to other energy sources and the fact that it burns more cleanly than either coal or oil. The most robust growth in gas demand is expected among the nations of the developing world, where overall demand is expected to grow by 2.9 percent per year from 2001 to 2025 in the reference case. In the industrialized world, where natural gas markets are more mature, consumption of natural gas is expected to increase by an average of 1.8 percent per year over that same time period, with the largest increment projected for North America at 12.9 trillion cubic feet. China and the other nations of developing Asia are expected to see among the fastest growth in gas use worldwide, increasing by 3.5 percent per year between 2001 and 2025.

Coal remains an important fuel in the world's electricity markets and is expected to continue to dominate fuel markets in developing Asia. Worldwide, coal use is expected to grow slowly, averaging 1.5 percent per year between 2001 and 2025 [Figure 21]. In the developing world, coal increases by 2.5 percent per year and will surpass coal use in the rest of the world (the industrialized world and the EE/FSU combined) by 2015. Coal continues to dominate energy markets in China and India, owing to the countries' large coal reserves and limited access to other sources of energy. China and India account for 67 percent of the total expected increase in coal use worldwide (on a Btu basis). Coal use is projected to increase in all regions of the world except for Western Europe and the EE/FSU (excluding Russia), where coal is projected to be displaced by natural gas and, in the case of France, nuclear power for electric power generation.

The highest growth in *nuclear* generation is expected for the developing world, where consumption of electricity from nuclear power is projected to increase by 4.1 percent per year between 2001 and 2025. Developing Asia, in particular, is expected to see the largest increment in installed nuclear generating capacity over the forecast, accounting for 96 percent of the total increase in nuclear power capacity for the developing world as a whole.

Consumption of *electricity from hydropower and other renewable energy sources* is expected to grow by 1.9 percent per year over the projection period. Much of the growth in renewable energy use is expected to result from large-scale hydroelectric power projects in the developing world, particularly among the nations of developing Asia.

World Carbon Dioxide Emissions. In the *IEO2004* reference case, world carbon dioxide emissions are projected to rise from 23.9 billion metric tons in 2001 to 27.7 billion metric tons in 2010 and 37.1 billion metric tons in 2025 [Figure 22].

Much of the projected increase in carbon dioxide emissions is expected in the developing world, accompanying the large increases in energy use projected for the region's emerging economies. Developing countries account for 61 percent of the projected increment in carbon dioxide emissions between 2001 and 2025. Continued heavy reliance on coal and other fossil fuels, as projected for the developing countries, would ensure that even if the industrialized world undertook efforts to reduce carbon dioxide emissions, there still would be substantial increases in worldwide carbon dioxide emissions over the forecast horizon.

CONCLUSIONS

Continuing economic growth in populous countries of the world, such as China, India, and the United States, is expected to stimulate more energy demand, with fossil fuels remaining the dominant source of energy. Dependence on foreign sources of oil is expected to increase significantly for China, India, and the United States.

These three countries alone account for 45 percent of the world increase in projected oil demand over the 2001 to 2025 time frame. A key source of this oil is expected to be the Middle East.

Furthermore, although natural gas production is expected to increase, natural gas imports in these three countries are expected to grow faster. In 2001, India and China produced sufficient natural gas to meet domestic demand, but by 2025, gas production in these two countries will only account for around 60 percent of demand. In the United States, reliance on domestic gas supply to meet demand falls from 86 percent to 72 percent over the projection period. The growing dependence on imports in these three countries occurs despite efficiency improvements in both the consumption and the production of natural gas.

This concludes my testimony, Mr. Chairman and members of the Committee. I will be happy to answer any questions you may have.

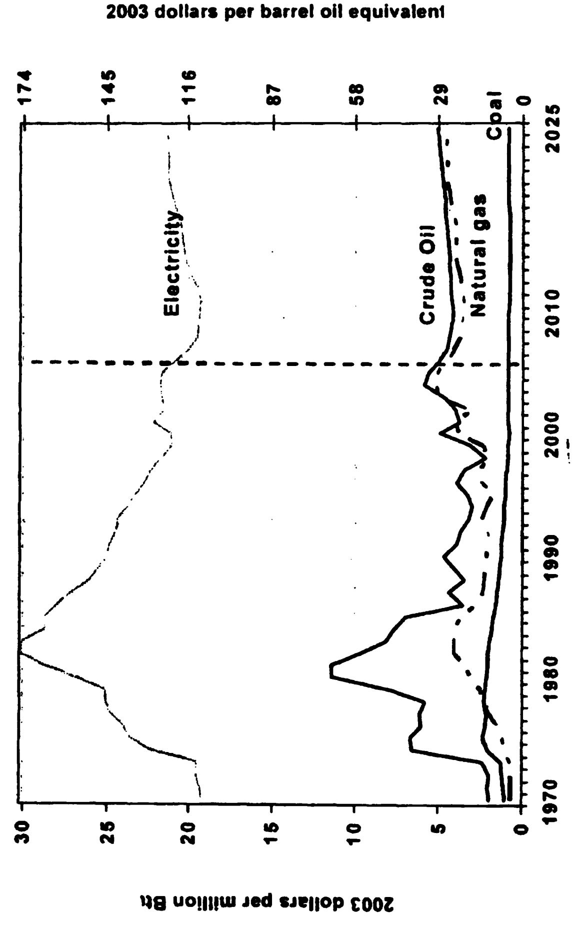


Figure 1. U.S. Energy Prices, 1970-2025

Figure 2. World Oil Price in two cases, 1970-2025
(2003 dollars per barrel)

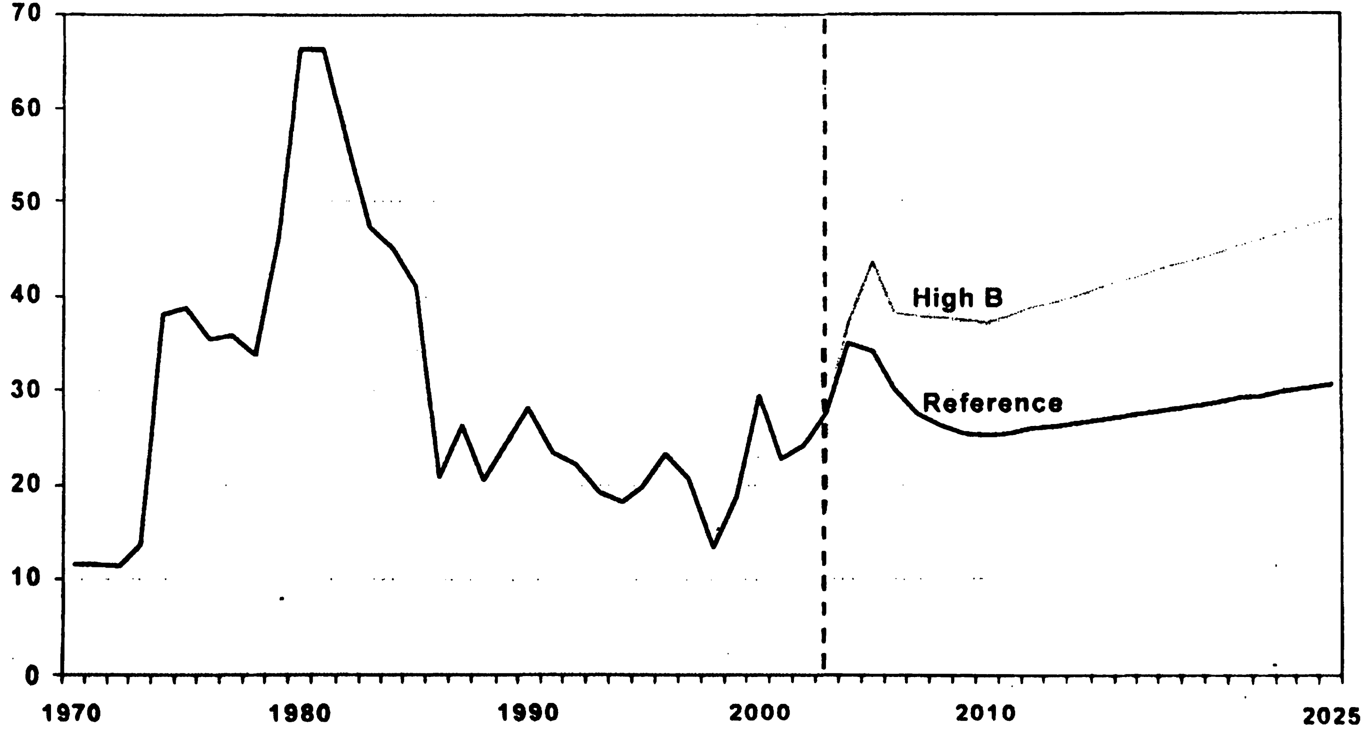


Figure 3. U.S. Delivered Energy Consumption by Sector, 2003 and 2025 (quadrillion Btu)

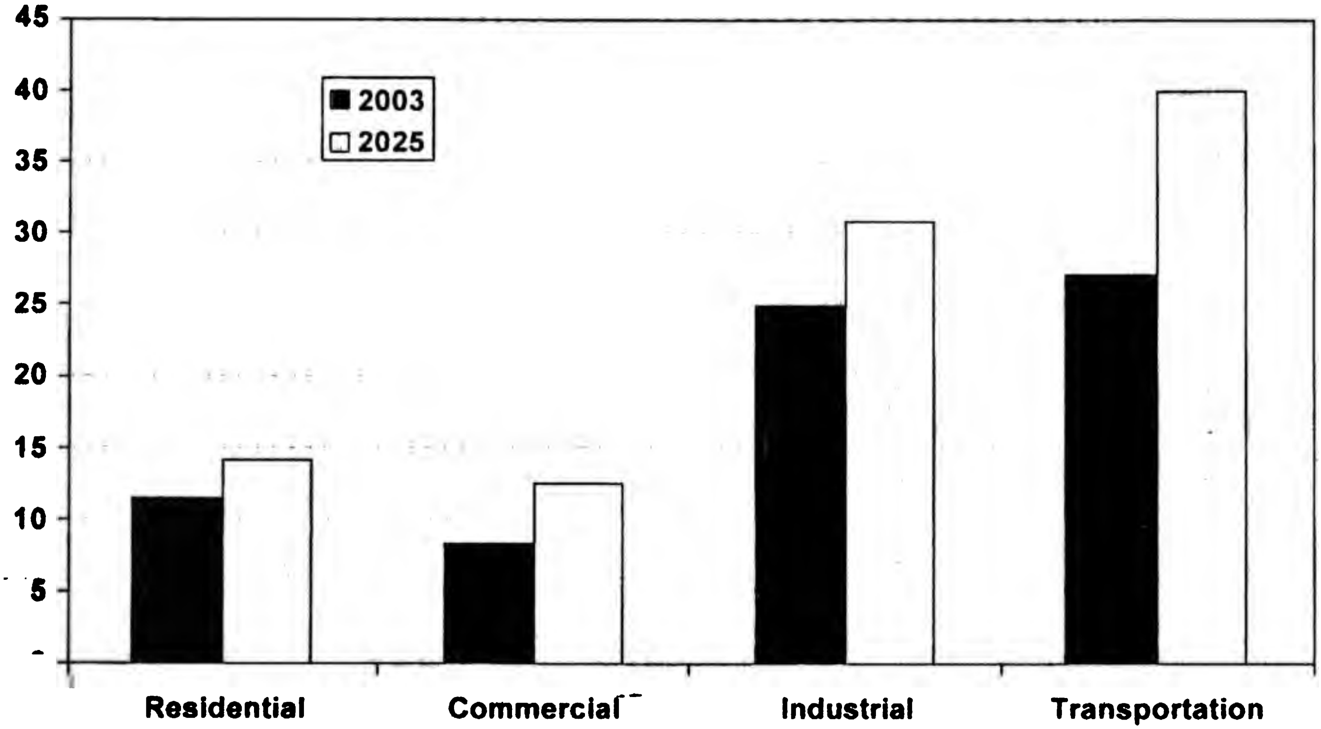


Figure 4. U.S. Energy Consumption in Three Cases, 1960-2025 (quadrillion Btu)

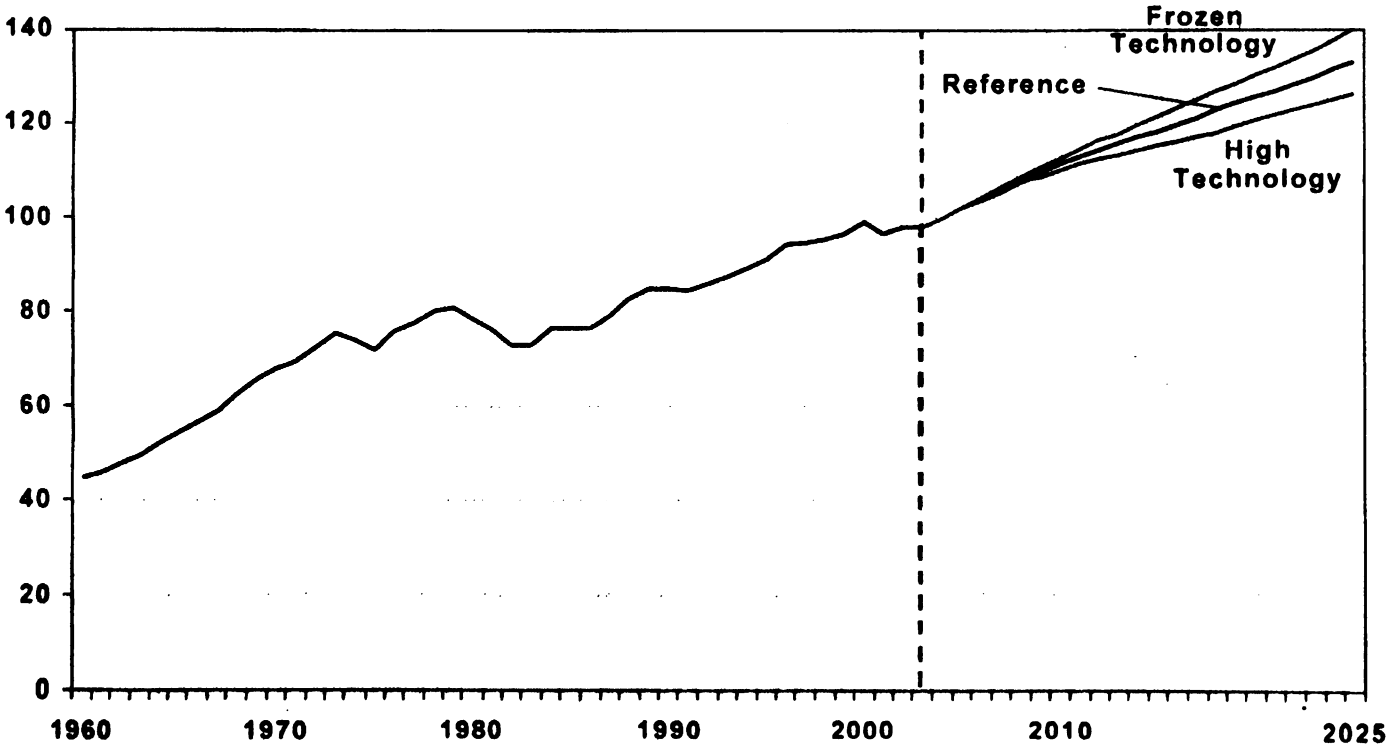


Figure 5. U.S. Energy Consumption by Fuel, 1970-2025
(quadrillion Btu)

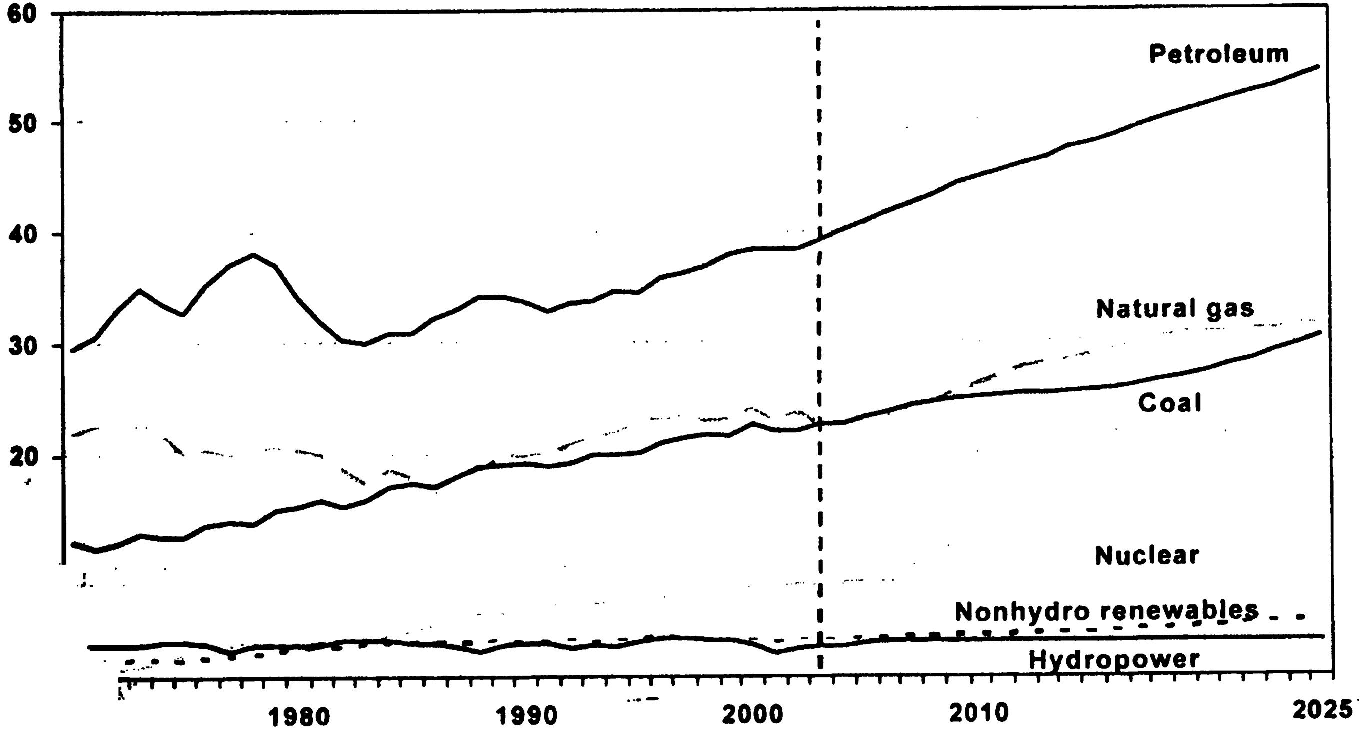


Figure 6. U.S. Energy Use per Capita and per Dollar of Gross Domestic Product, 1970-2025 (index, 1970 = 1)

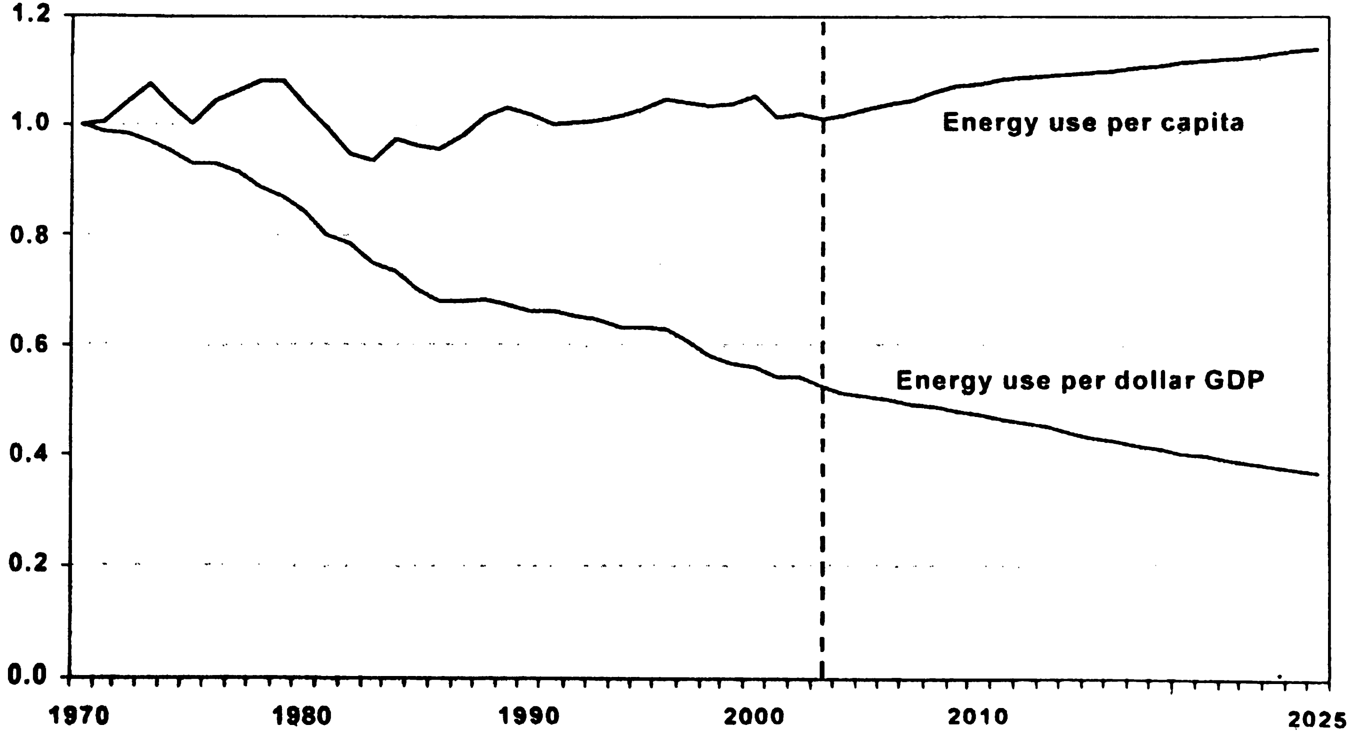


Figure 7. U.S. Energy Production, Consumption, and Net Imports, 1960-2025 (quadrillion Btu)

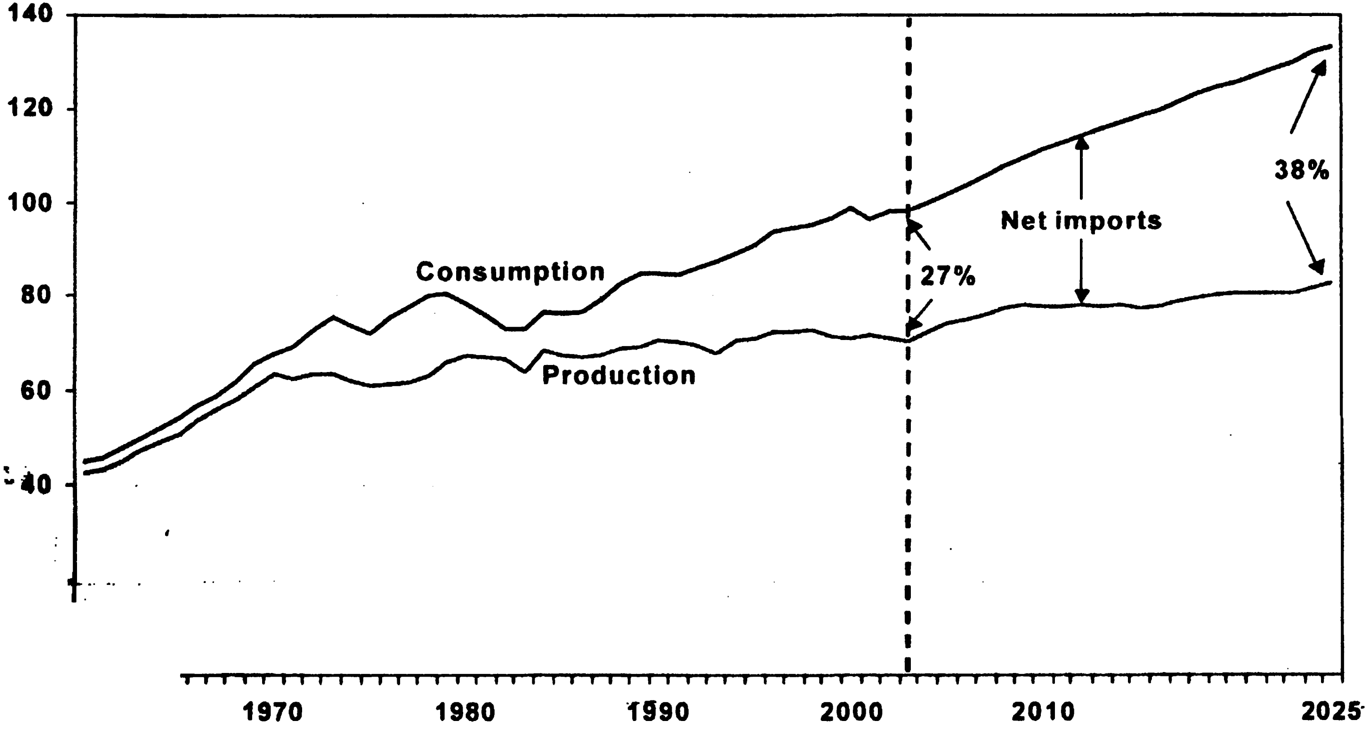


Figure 8. U.S. Petroleum Supply, Consumption, and Imports, 1970-2025 (million barrels per day)

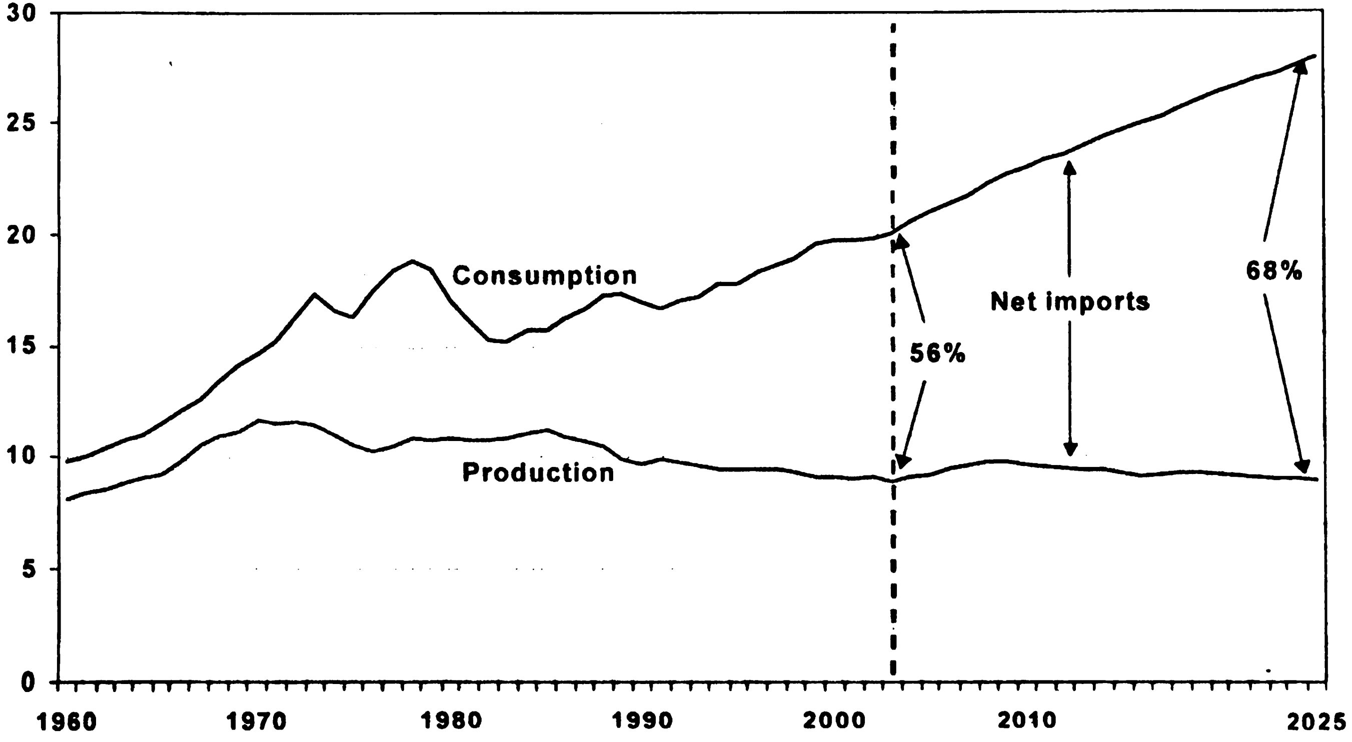


Figure 9. Petroleum Supply, Consumption, and Imports, in Two Cases 1970-2025 (million barrels per day)

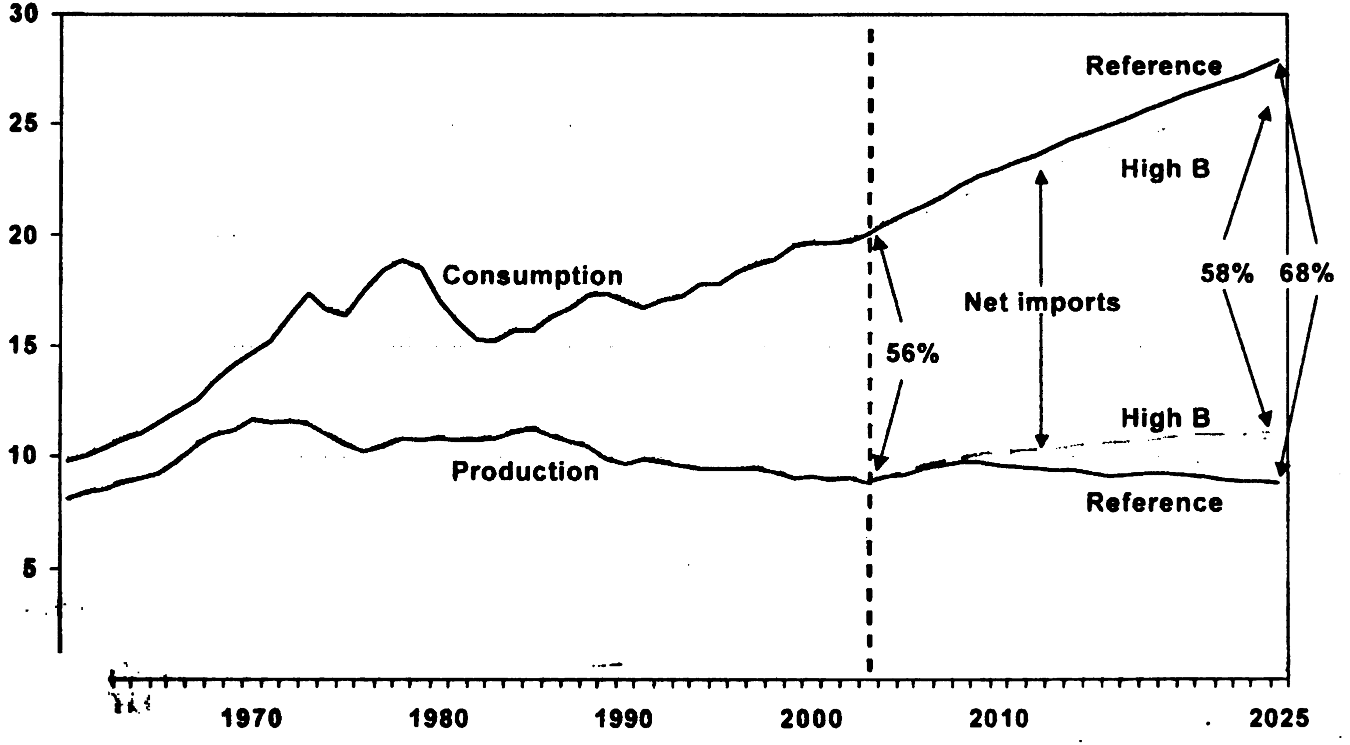


Figure 10. Petroleum Liquids Supply from Coal and Natural Gas in the High B Case, 2003-2025 (thousand barrels per day)

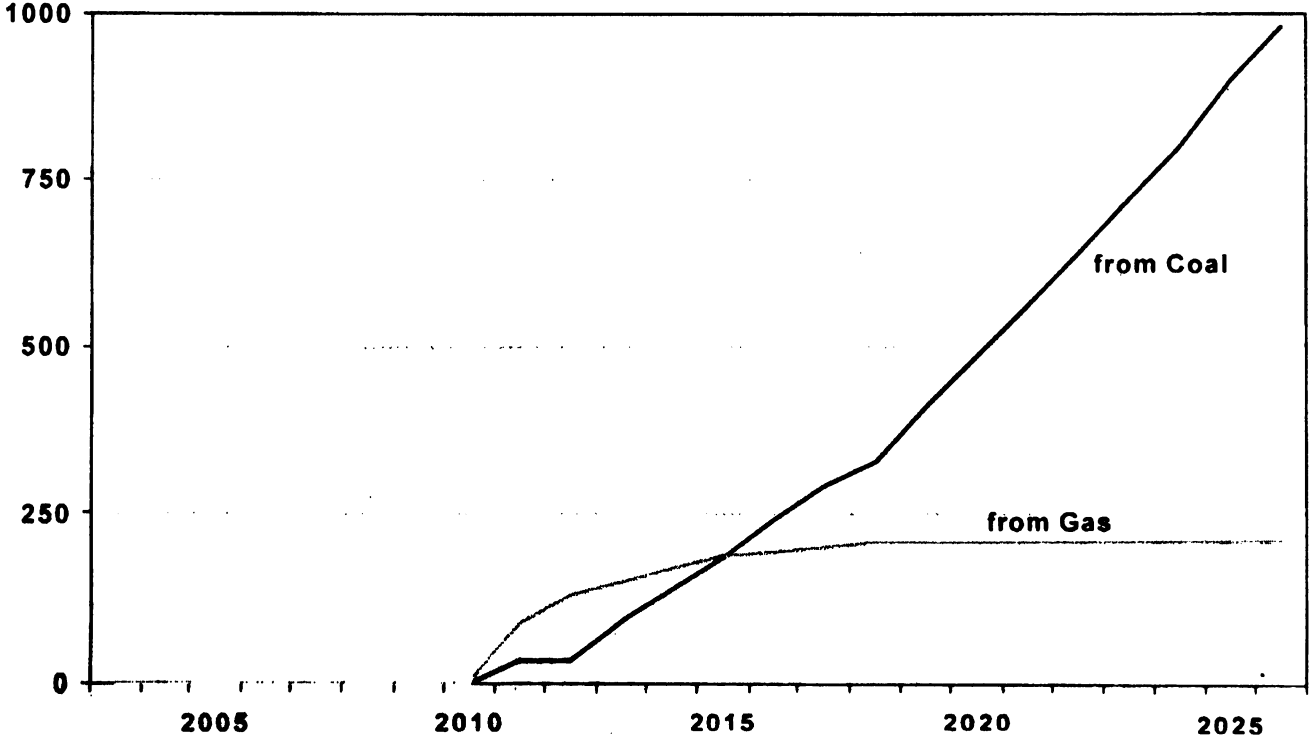


Figure 11. U.S. Natural Gas Production, Consumption, and Imports, 1970-2025 (trillion cubic feet)

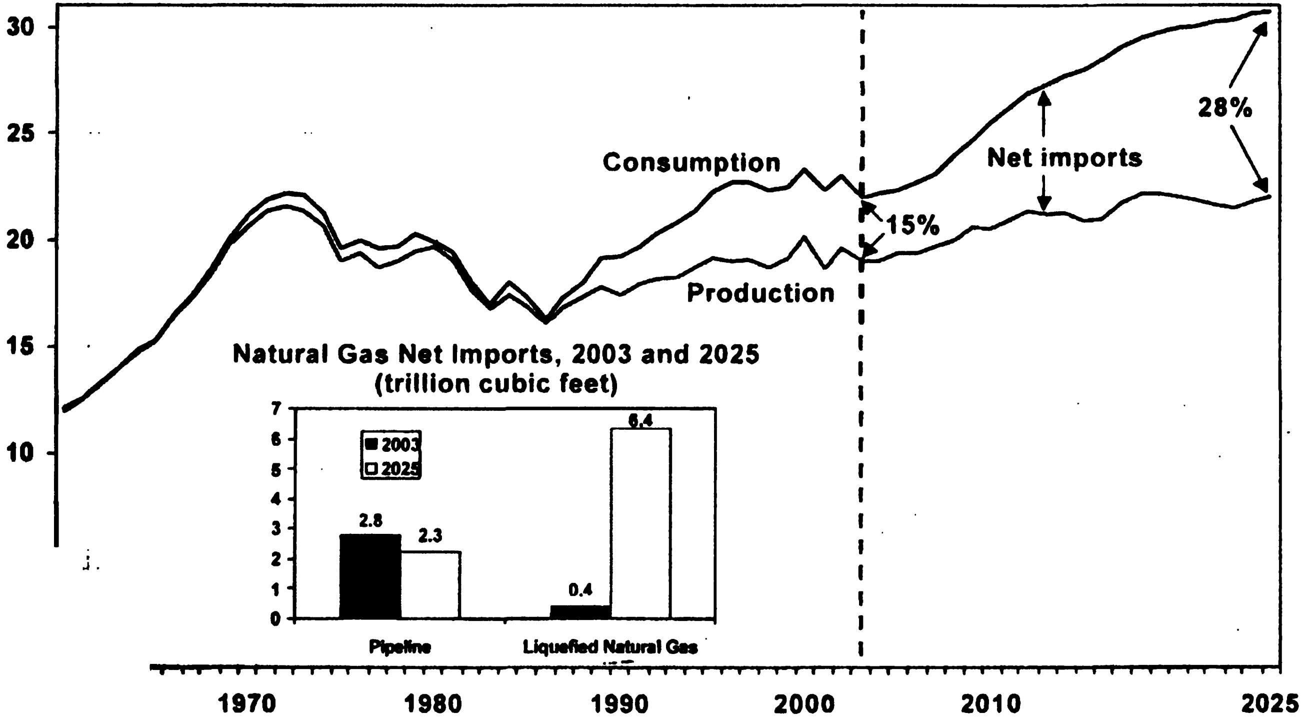


Figure 12. U.S. Coal Production by Region, 1970-2025
(million short tons)

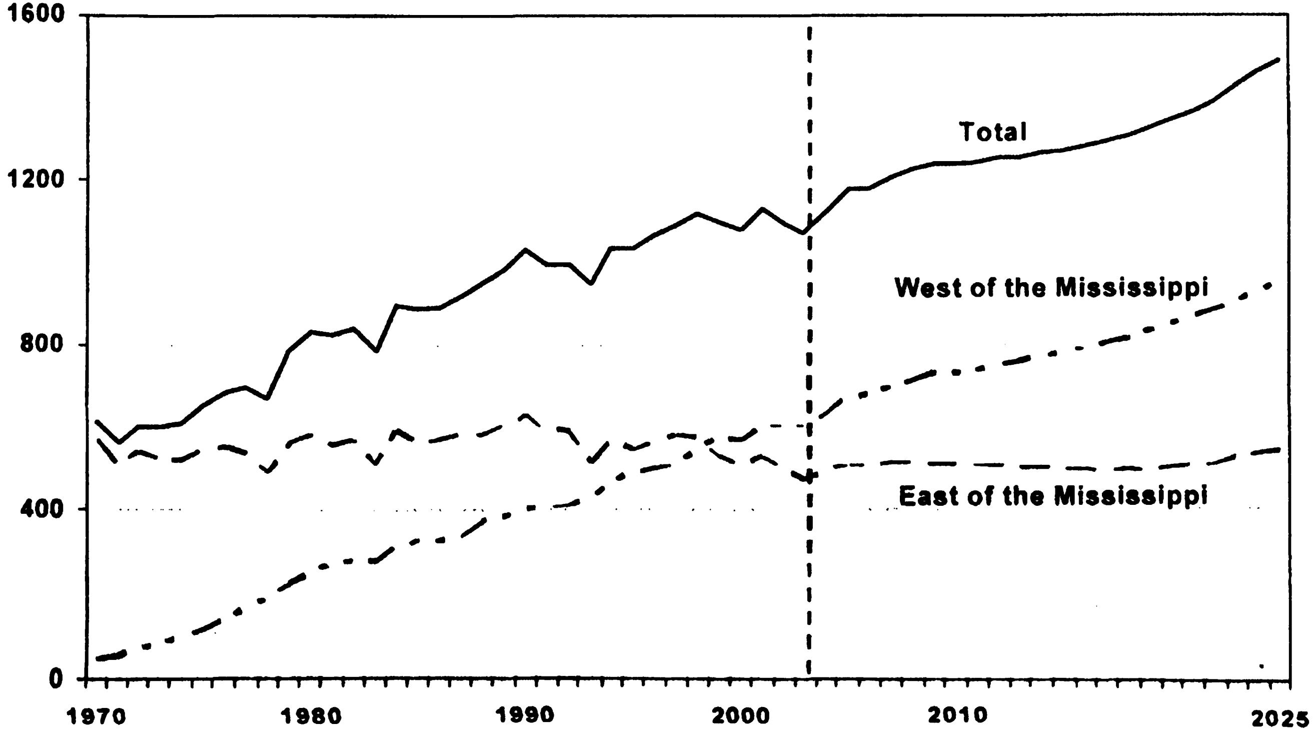


Figure 13. U.S. Electricity Generation by Fuel, 1970-2025
(billion kilowatthours)

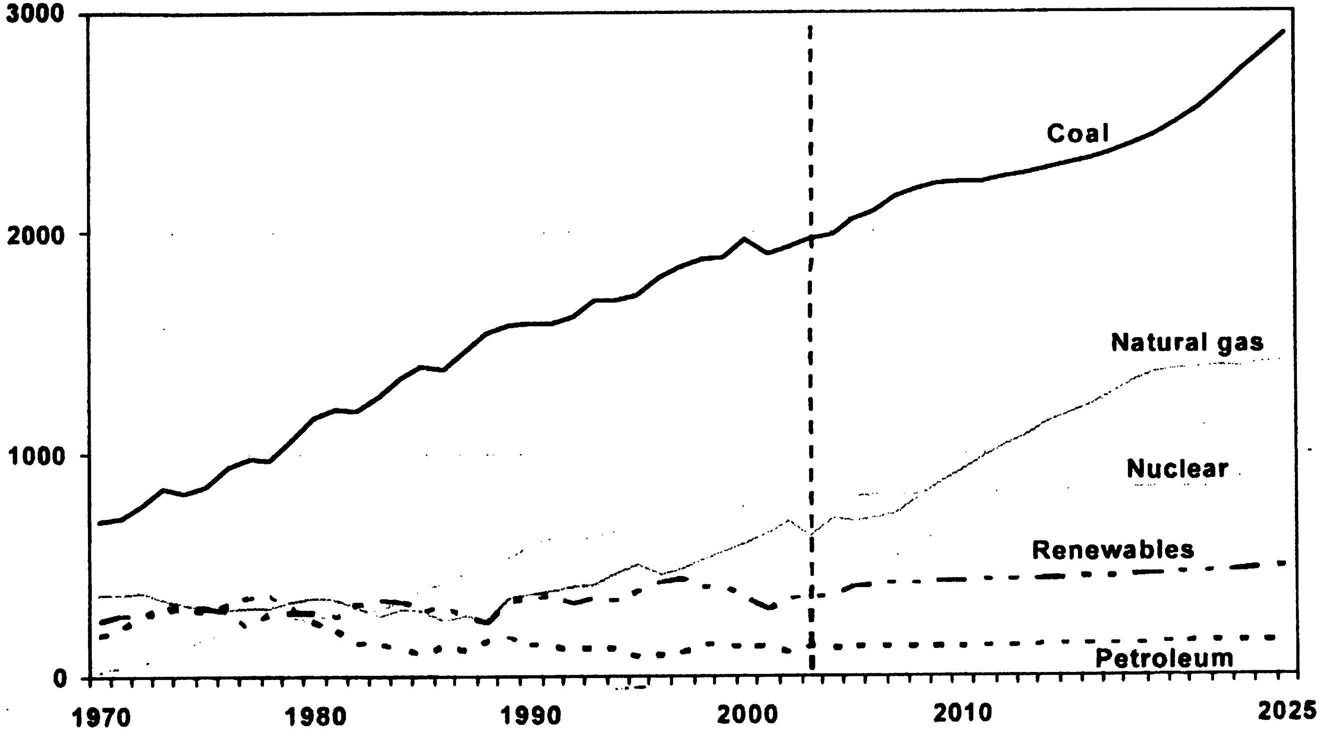


Figure 14. Electricity Generation Capacity by Nuclear Power in Three Cases, 1970-2025 (gigawatts)

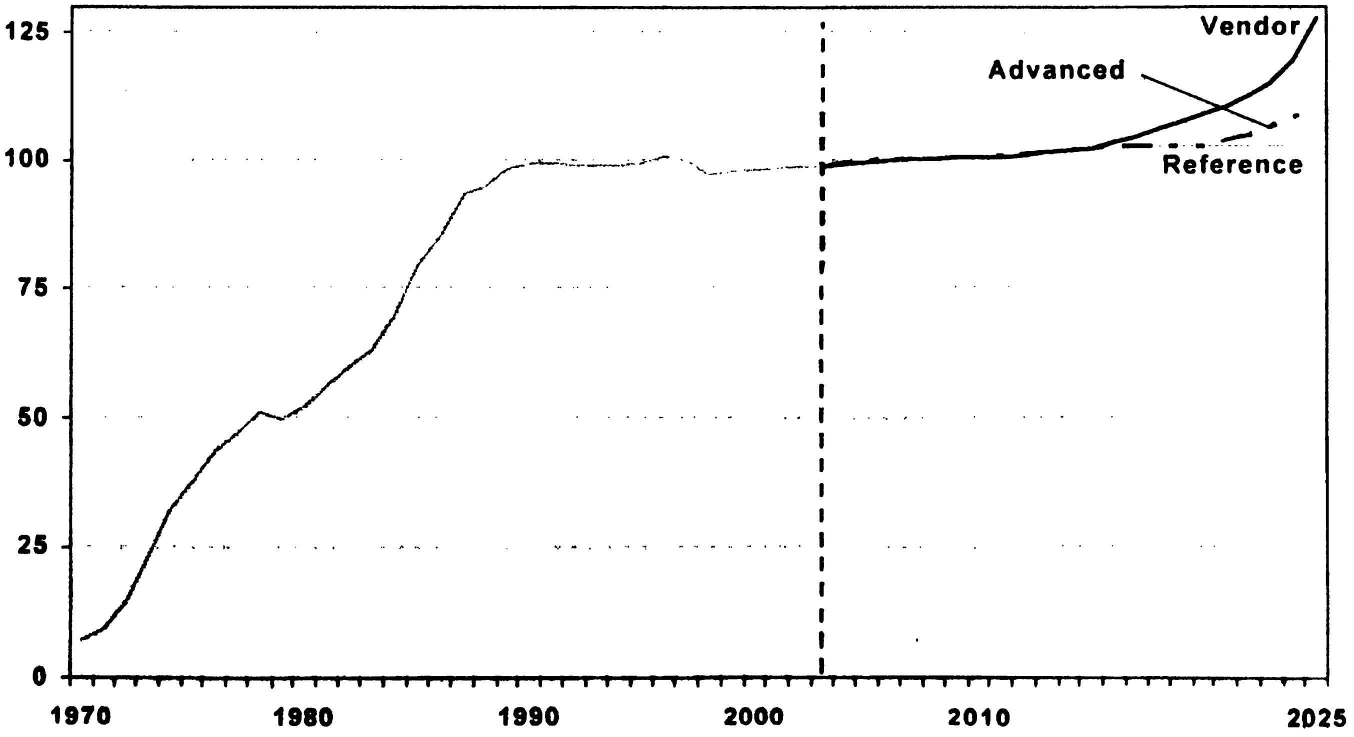


Figure 15. Renewable Electricity Generation Capacity in Two Cases, 2015 and 2025 (gigawatts)

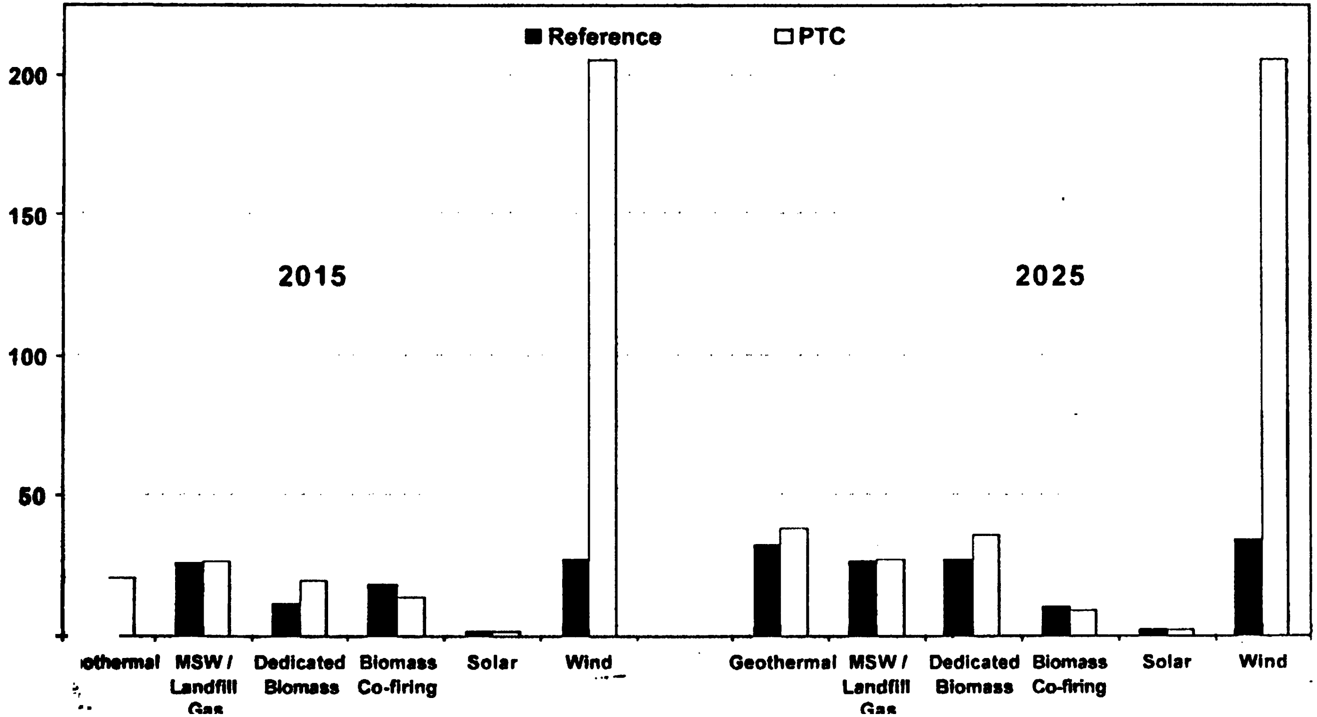


Figure 16. U.S. Carbon Dioxide Emissions by Fuel and Sector, 1970-2025 (million metric tons)

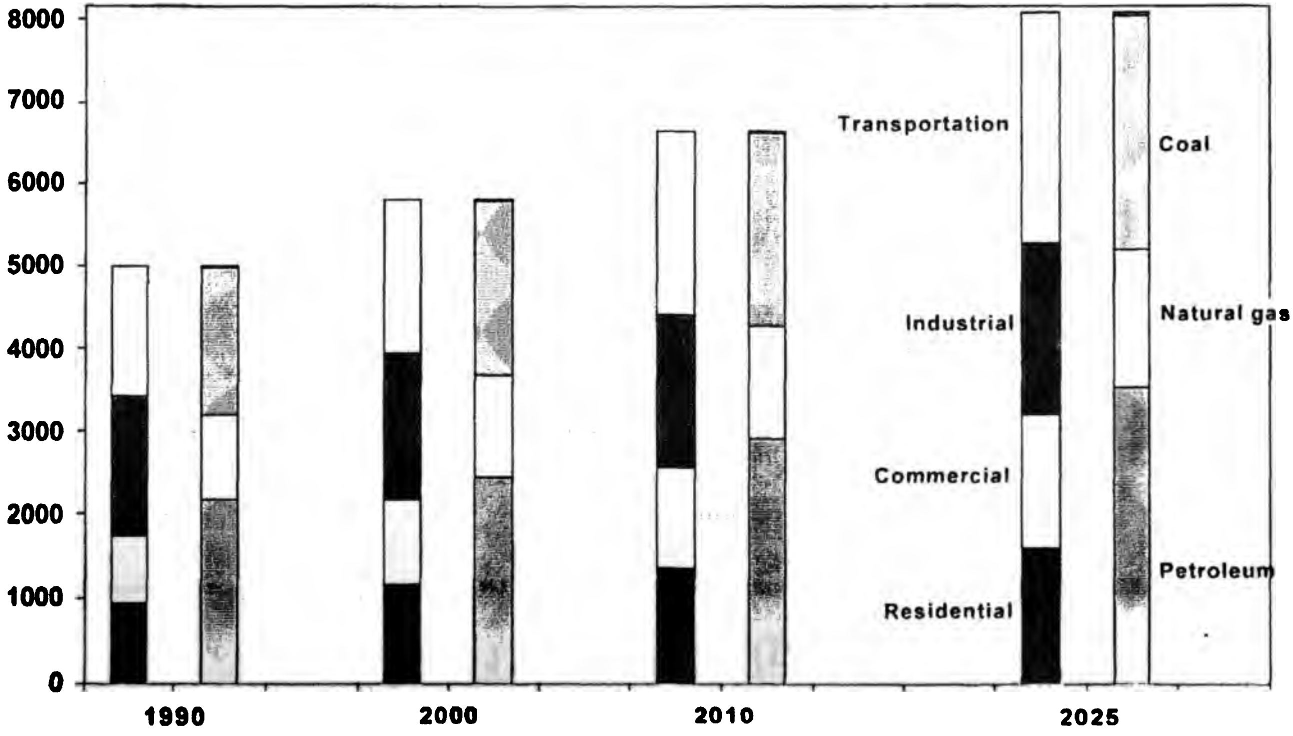


Figure 17. World Marketed Energy Consumption by Region, 1970-2025 (quadrillion Btu)

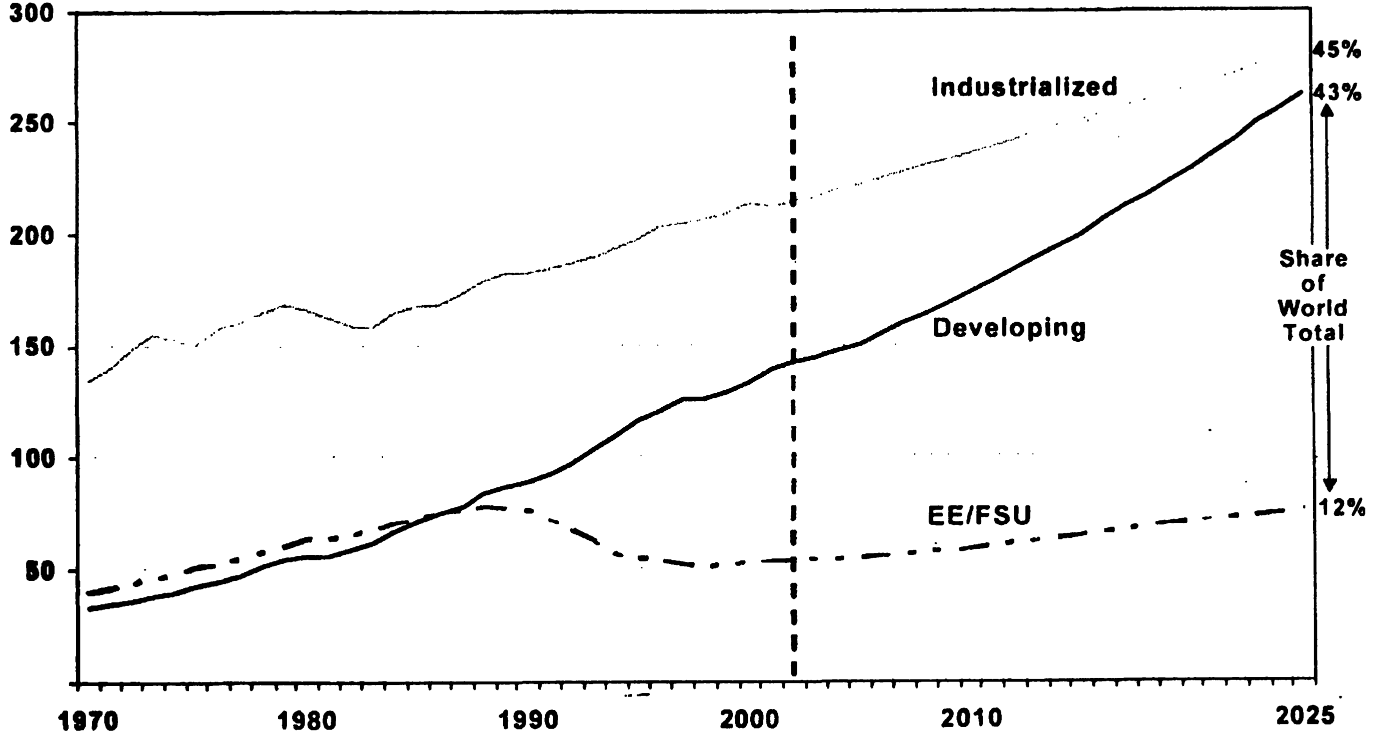


Figure 18. Energy Consumption in the Developing World, 1970-2025 (quadrillion Btu)

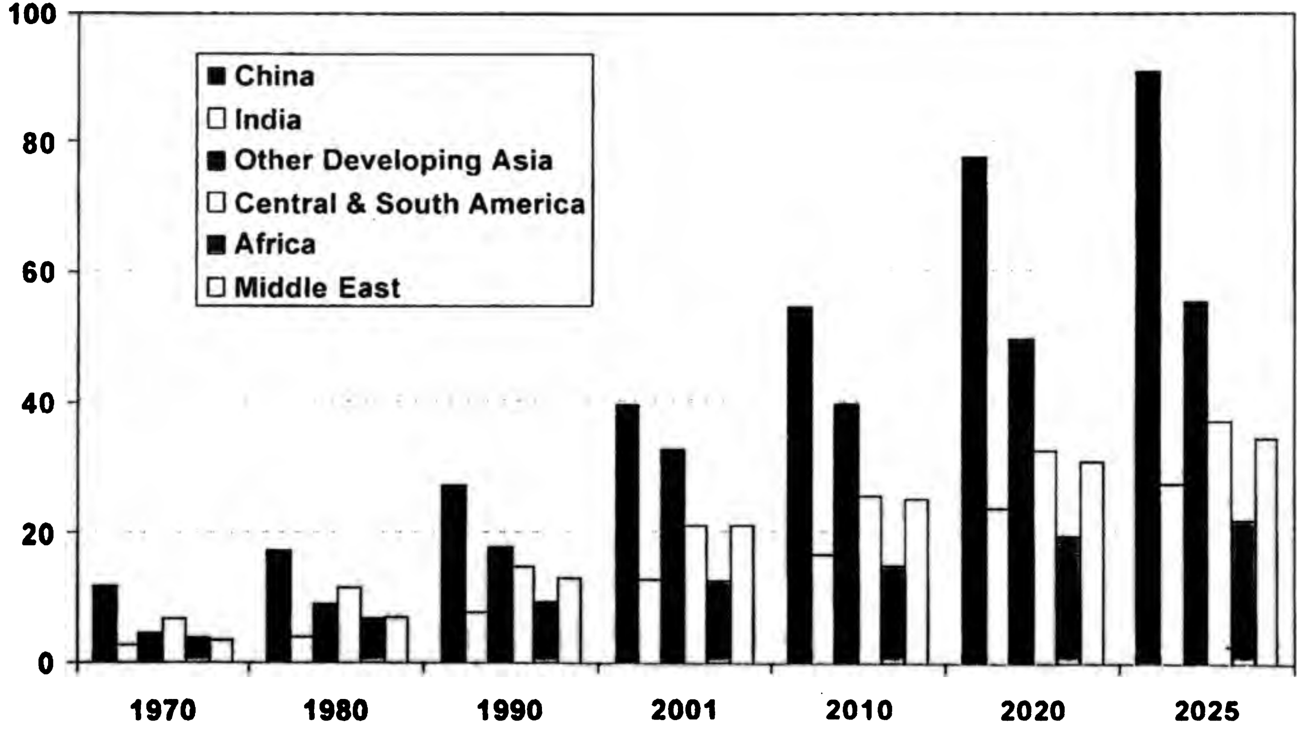


Figure 19. World Oil Consumption by Region, 2001, 2010, and 2025 (million barrels per day)

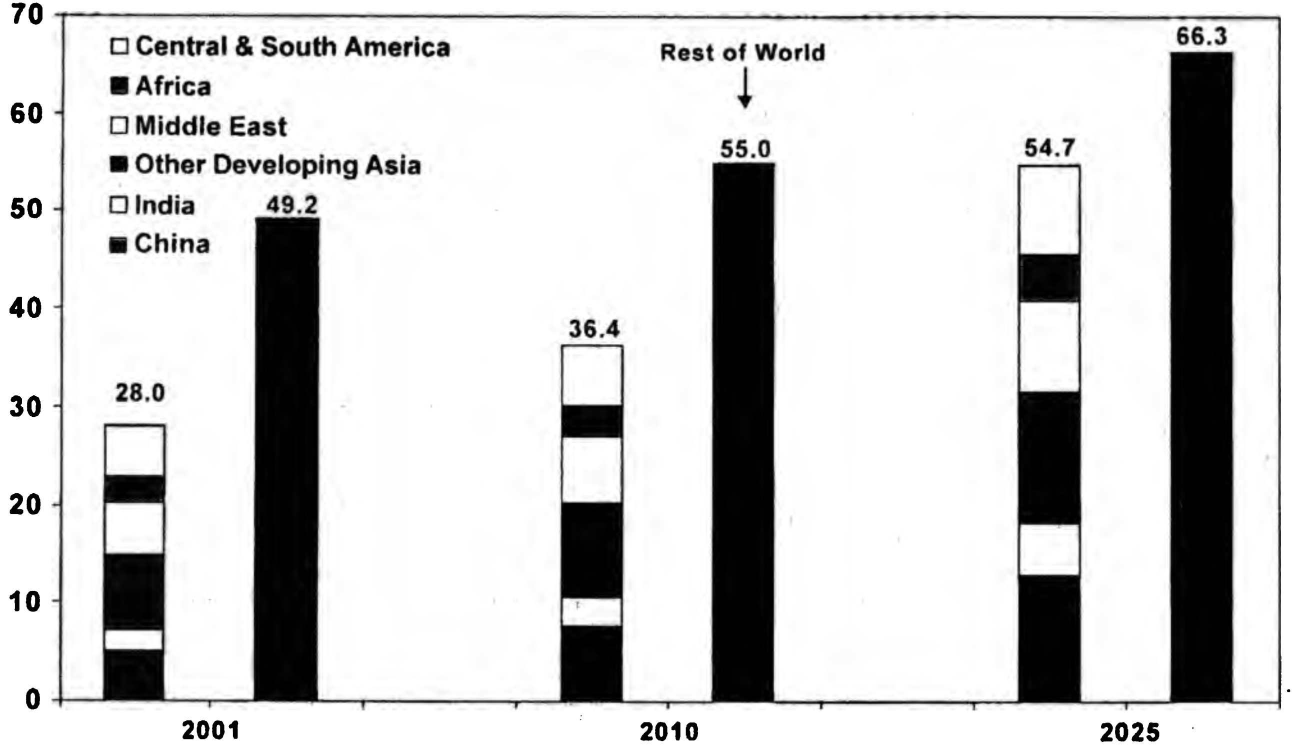


Figure 20. Natural Gas Consumption by Region, 2001, 2010, and 2025 (trillion cubic feet)

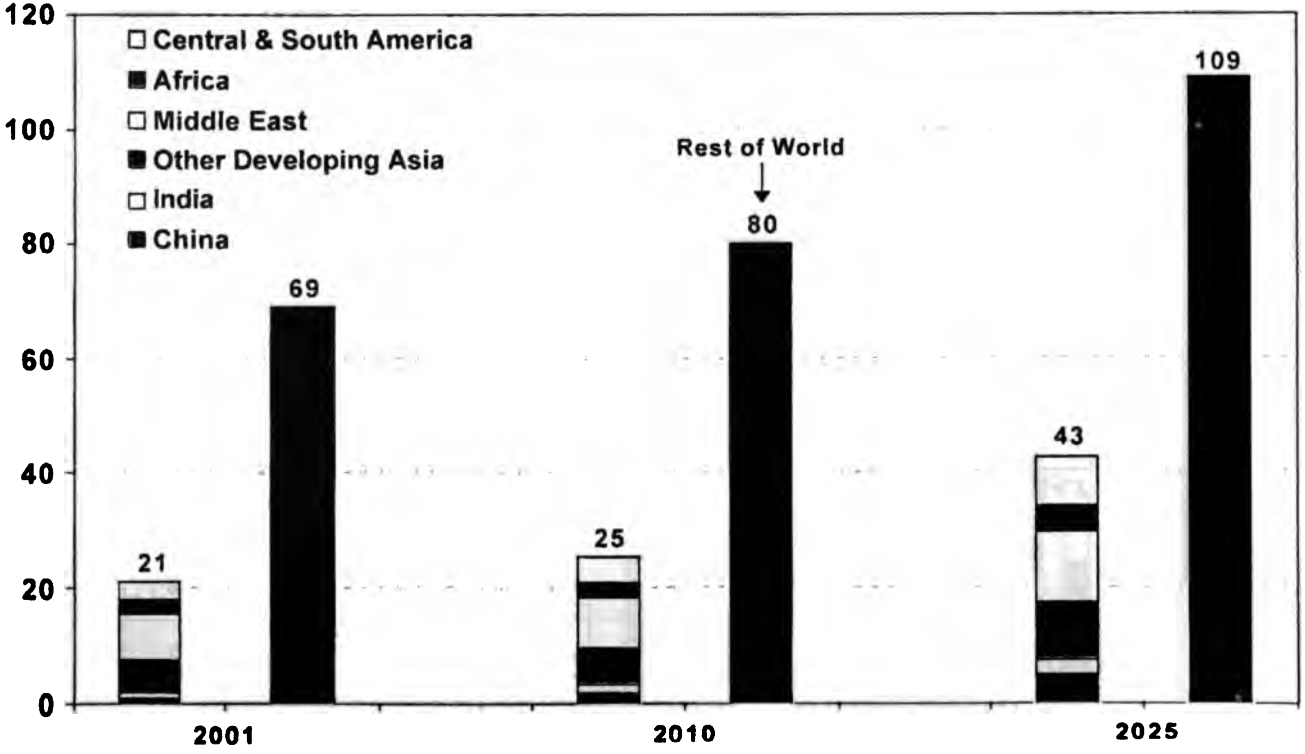


Figure 21. Coal Consumption by Region, 2001, 2010, and 2025 (million short tons)

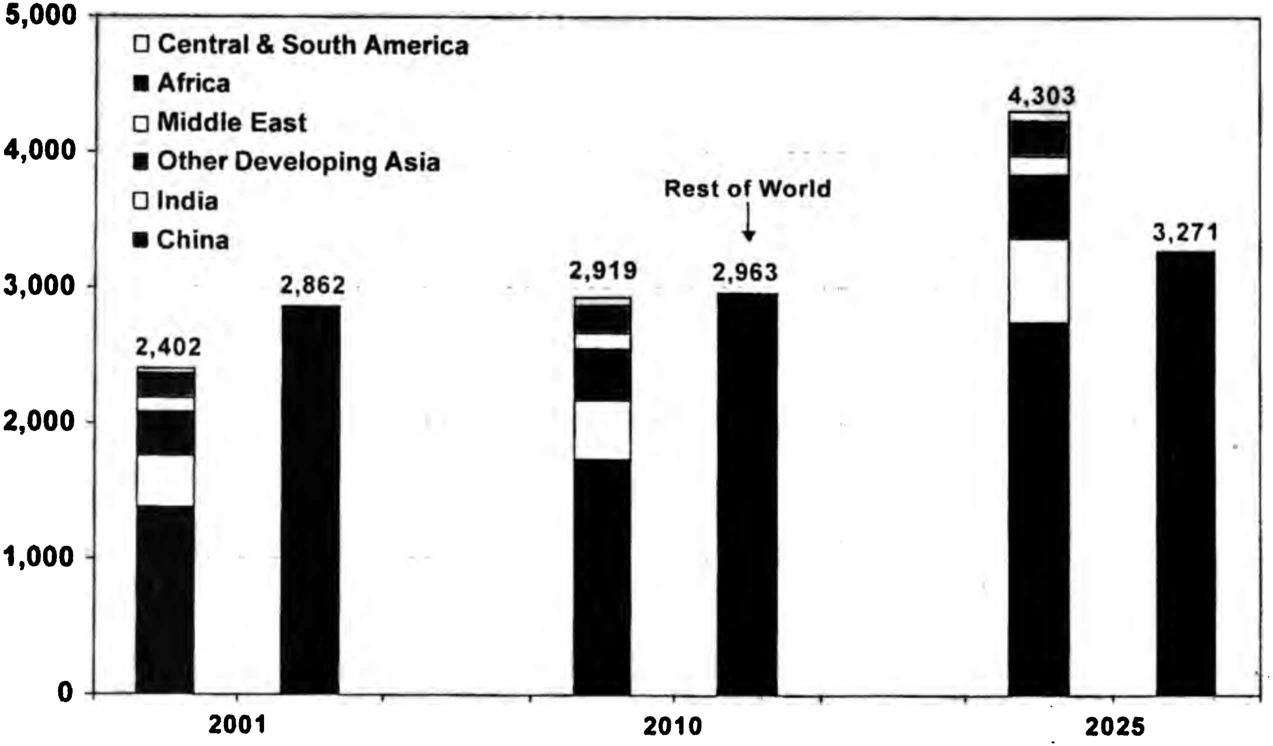
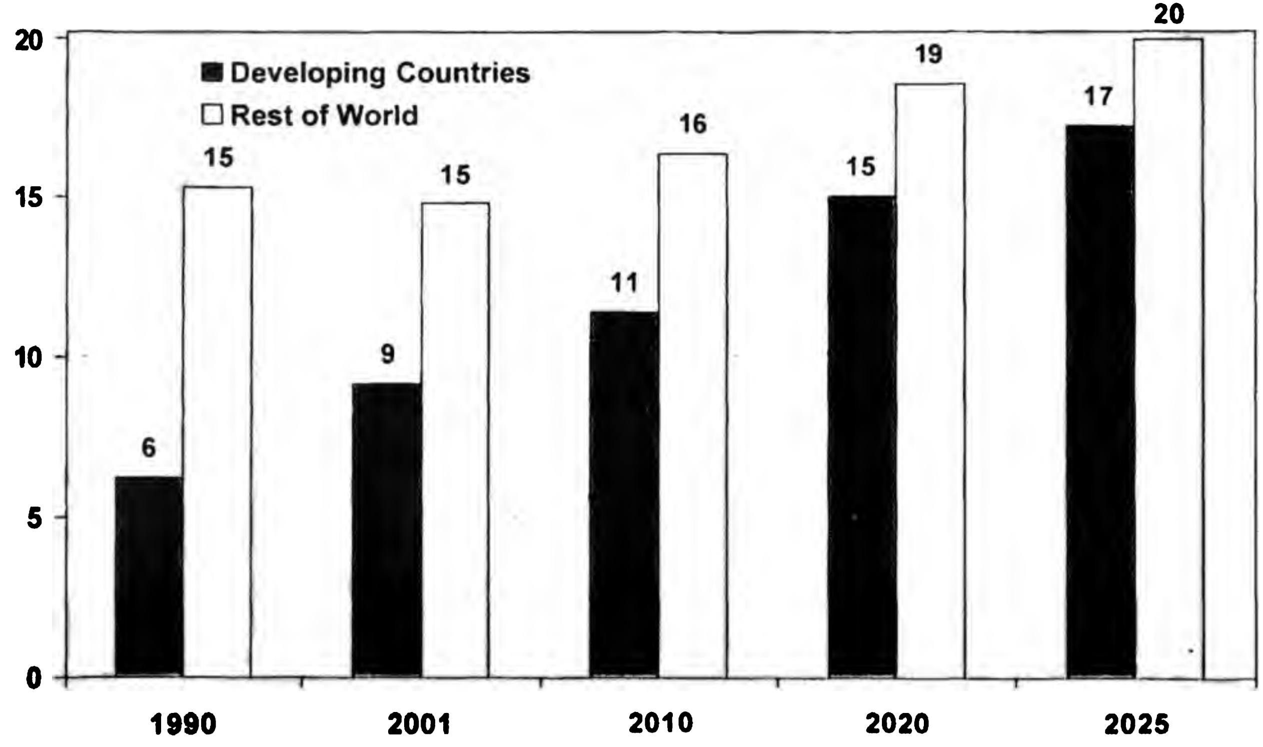


Figure 22. World Energy Related Carbon Dioxide Emissions by Region, 1990-2025 (billion metric tons)



Mr. HALL. Thank you. And I apologize to you for not having all the members here. This is the second panel, most of you are veterans at that. I could be egotistical, and say that the main one is here, but that wouldn't be true, either. But Mrs. Showalter, the Governor has about 15 or 20 people waiting for him across there, and one thing, if you could yield to him now, we would hear him less, and it would be an accommodation to him. We have all of your statements, and will go into the hearing record, will be read by everybody here, and the most important people of all are here, these staffers that are sitting behind us usually do most of the work, and you have got a couple of trillion dollars worth of taxpayers directly behind you back there.

Governor, we recognize you for as much time as you take.

STATEMENT OF HON. FRANK MURKOWSKI

Governor MURKOWSKI. Thank you very much, Mr. Chairman, and I apologize to Madam Showalter. Let me indicate my appreciation, Mr. Chairman. I have brought 5 copies of caribou activity at the airport in Barrow that I personally saw last week, and I would appreciate it if Mr. Markey could get a copy delivered, my good friend. I don't believe he has been up there, and those caribou may be there today. They might not be there tomorrow, but they were there when I was there last Thursday.

Mr. HALL. I am not sure I want him up there, but I will deliver anything you want to him.

Governor MURKOWSKI. All right.

Mr. HALL. Go ahead.

Governor MURKOWSKI. The National Governors Association supports an energy policy that balances energy production, efficiency, conservation, environment, quantity, and health of the economy, and our policy maintains that energy issues must be addressed nationally, and we commend you for that, Mr. Chairman, while still recognizing very strongly the role of our State and local authorities over environmental and land issues, and that was discussed at the first panel.

We believe that the solution to the need for energy will require increased conservation, energy efficiency, as well as exploration of new energy supplies, particularly in those areas where States support the development and production of energy sources. The exploration should include environmentally responsible areas, development of national and traditional fossil fuel sources, and greater reliance on alternative and renewable sources, and that comes as no surprise, because when I left my chairmanship in 2002, you were debating basically the same issues, and I commend you for your insistence on getting on a bill at this time.

And particularly, we think, in the National Governors Association, the titles of the conference agreement dealing with energy efficiency, renewable energy, are very positive. We support provisions of the oil and gas title that will promote new domestic pr[illegible]uction through exploration and development of additional [illegible] reserves, and encourage effective, market-l[illegible] support production of natural gas supp[illegible] frastructure in an environmentally sou[illegible]

We would also like to see a reduction in the impediments that limit natural gas production. However, we are mindful that many States support drilling moratoria off their shores, and we respect that. But on the other hand, those that want to have exploration, we think that the country and the committee should stand behind those States, if the prospects are indeed there. We believe that the Federal land management agencies should have the resources available to participate and coordinate with States regarding Federal decisions about energy exploration and production on Federal lands, and of course, we continue to support the resources in Alaska and the Alaska Natural Gas Pipeline. With regard to coal, we believe that the conference report will encourage technologies to utilize coal more cleanly and more efficiently with new clean coal technology. The development and use of hydrogen as a fuel source will be encouraged by the conference report, and we support the Federal assistance for research, development, as well as demonstration projects.

Some provisions of the electricity title continue to cause concerns to the Governors. While we strongly support the development of mandatory rules to ensure transmission grid reliability, we continue our longstanding opposition to Federal preemption of State authority to choose the location of interstate transmission lines. FERC should not be granted the power to override State law, even as a backup to a State's decision to disapprove a project. We have yet to see credible evidence that States have abused their responsibility to balance electric transmission needs with other important public consideration. We were encouraged that the conference report recognized the importance of regional solutions by preventing the FERC from overriding a decision by a regional transmission siting agency established by interstate compact, but we think that there is still work to do on this provision, and we hope to have the opportunity to offer our suggestions, Mr. Chairman.

Finally, we would like to extend our support for the many conservation initiatives in the conference committee report. We believe that the Federal Government should promote energy conservation education programs, and fund research into conservation technologies. Federal funding of energy conservation programs, including grants to States should be enhanced. The development of energy-efficient technologies, including fuel efficient engines, and vehicle technology should be actively promoted, and the U.S. Department of Energy should be provided with adequate authority, funding, and staffing to undertake and coordinate conservation activities.

I want to thank you for this opportunity, Mr. Chairman. I would like to just conclude with a couple of other references with regard to the coastal plain, which has been discussed this morning. The U.S. Geological Survey has estimated that in ANWR, there is a recovery of somewhere between 5.7 and 15.9 billion barrels of oil, and as noted in the discussion this morning, why, we have already heard that the pipeline has a capacity for another million barrels a day.

I would also like to point out to the committee that the State of Alaska has the jurisdiction 3 miles off ANWR, so the entire coastline 3 miles out. We have waited patiently for the Congress to address the development of ANWR, and would encourage that the energy bill include ANWR, because there is no question in our minds, based on our production experience in the Prudhoe Bay area that the area can be opened safely.

I would remind the committee of one other thing, and I think this is oftentimes lost. We have lots of sources of energy. We have got nuclear. We have got hydro. We have got solar. We have got wind. But the world still moves on oil, Mr. Chairman, and the national security interests of our Nation rest with, I think, a declining security in the sense that we are becoming more and more dependent on sources overseas, which certainly affects the national energy, and we look at our world here pretty much consisting of the United States, but as we see China, where they are getting off their black bicycles and into their automobiles, there is just a reality there is going to be more and more pressure on the world's supply of oil, and if we can reduce that by producing more here at home, addressing the balance of payments, creating jobs here in America, and do it safely, why, then we should do it with dispatch, Mr. Chairman. And certainly my State happens to be blessed with a huge amount of resources, particularly in the area of oil and gas, and as you know, Mr. Chairman, I will conclude that the Congress has done the initial authorization on the gas line, and the State of Alaska is in the process of negotiating with various companies that are making proposals, including the State contemplating taking an equity interest, putting up a billion dollars or thereabouts of equity to assure that this project comes to reality, and that would provide this Nation with about a 30 year supply of gas, at nearly 4 to 6 billion cubic feet a day.

So, Mr. Chairman, I think that, this is an old saying, whether it is in Alaska or Texas, charity begins at home. Thank you, Mr. Chairman.

[The prepared statement of Hon. Frank Murkowski follows:]

Prepared Statement of Governor Frank Murkowski, on Behalf of the National Governors Association

Mr. Chairman and members of the Committee on Energy and Commerce, I am Frank Murkowski, Governor of the State of Alaska, and Chairman of the National Governors Association Natural Resources Committee. The bulk of my comments will be on behalf of NGA, however, I will have some Alaska-specific comments at the conclusion of my statement.

I appreciate the opportunity to provide comments to this committee as you consider legislation to create a comprehensive energy policy for the United States. NGA supports an energy policy that balances energy production, efficiency and conservation, environmental quality, and a healthy economy. Our policy maintains that energy issues must be addressed nationally, while still recognizing state and local authority over environmental and land use issues.

We believe that the solution to the need for energy will require increased conservation and energy efficiency as well as exploration of new energy supplies. That exploration should include environmentally responsible development of traditional fossil fuel sources and greater reliance on alternative and renewable sources.

In particular, we think the titles of the Conference agreement dealing with energy efficiency and renewable energy are very positive and will provide incentives for programs that help encourage new techniques and technologies. We support provisions of the oil and gas title that will promote new domestic production through exploration and development of additional petroleum reserves and encourage effective market-based measures that will support production of natural [illegible] supplies and development of infrastructure in an environmentally

We also would like to see a reduction in the production, however, we are mindful that many [illegible] their shores. We believe that federal land management agencies should have the resources available to participate and coordinate with states regarding federal decisions about energy exploration and production on federal lands. And of course, we continue our support for the Alaska natural gas pipeline.

With regard to coal, we believe that the conference report will encourage technologies to utilize coal more cleanly and efficiently. The development and use of hydrogen as a fuel source will be encouraged by the conference report, and we support federal assistance for research and development, as well as demonstration projects.

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Finally, we would like to extend our support for the many conservation incentives in the conference committee report. We believe that the federal government should promote energy conservation education programs and fund research into conservation technologies. Federal funding of energy conservation programs, including grants to states, should be enhanced. The development of energy efficient technologies, including fuel-efficient engine and vehicle technologies, should be actively promoted. The U.S. Department of Energy should be provided with adequate authority, staffing, and funding to undertake and coordinate conservation activities.

Thank you very much for this opportunity to share NGA's policies with you.

I recognize that certain aspects of oil and gas development are not within the jurisdiction of this Committee. However, I want to make some brief comments concerning three oil and gas issues of interest to Alaska and the Nation:

ANWR

The Coastal Plain of ANWR has been determined to be the most promising unexplored petroleum province in North America, the only area with the potential to discover an "elephant" field like Prudhoe Bay. Thus, the US Geological Survey has estimated that the amount of technically recoverable oil beneath the Coastal Plain ranges between 5.7 billion (95% probability) and 15.9 billion barrels (5% probability) at $25 per barrel. At $50 per barrel, all of the known physical reserves would be economic, thereby increasing these estimates significantly. The Coastal Plain may also contain significant deposits of natural gas.

Oil from ANWR represents a secure domestic supply, which could help fulfill US demand for twenty five years or more. Government studies suggest that the Coastal Plain could produce a ten year sustained rate of one million barrels per day.

The development of ANWR would reduce US dependence on unstable foreign sources of crude oil, such as oil from the Middle East and OPEC countries

ANWR oil would reduce the US trade deficit, a large percentage of which is directly attributable to the importation of crude oil, now totaling approximately 60% of daily consumption and rising

Incremental production from the Coastal Plain of ANWR should help reduce price volatility in the US. In this regard, recent supply disruptions affecting Nigeria, Iraq, Norway, and the Gulf of Mexico illustrate how even relatively low levels of production can influence the world price of oil

ANWR development would create hundreds of thousands of American jobs affecting virtually every state by providing a secure supply of petroleum and by creating a demand for goods and services

Oil and gas development in ANWR is not a panacea. Such development should be part of an energy policy which includes the development of alternative fuels, fuel efficiency, conservation, and other measures. However, gasoline and other products refined from crude oil will continue to fuel our transportation system for the foreseeable future

Experience on the North Slope demonstrates that ANWR can be developed in a manner that protects the environment and which provides greater safeguards than exist in other parts of the world:

- Advanced technology such as horizontal drilling, multiple well completions, and smaller drilling pads, ensures that the footprint of development would be less than 2,000 acres (approximately the size of an average farm in South Carolina or the equivalent of one letter on the front page of the New York Times)
- The Coastal Plain of ANWR comprises approximately 1.5 million acres in a National Wildlife Refuge that includes over 19 million acres (the size of South Carolina) of which 8 million acres has been designated by Congress as wilderness and hence would be off limits to any commercial activity
- Oil development is compatible with the protection of wildlife and their habitat. For example, North Slope caribou herds have remained healthy throughout previous oil development. In fact, the Central Arctic caribou herd, which is located in and around Prudhoe Bay, has increased 10 fold in the last 20 years
- For most of the year, the Coastal Plain of ANWR is a frozen, desolate area. Experience demonstrates that seasonal restrictions and other environmental stipulations can be utilized to protect caribou calving (6 weeks in the summer), migratory birds, and fish

Recognizing the employment and economic benefits that would accrue to them, the Inupiat Eskimos of the North Slope generally support oil development in the Coastal Plain. In this regard, most residents of the village of Kaktovik, which is located on the Coastal Plain, have expressed their support for development

For the past 5 years, the administration of President George W. Bush has strongly supported responsible oil development in the Coastal Plain of ANWR in recognition of the economic and national security benefits that would accrue to the nation. The Bush administration has estimated for budgetary purposes that the initial phase of ANWR development would generate $1.2 billion to the Federal treasury in Fiscal Year 2007.

Responsible oil and gas development in the Coastal Plain is supported by a broad spectrum of groups and organizations, including businesses, labor unions, petroleum users and others. ANWR has become a symbol in the philosophical debate over development versus protection. However, as the preceding indicates, the facts demonstrate that ANWR, with its concomitant benefits, can be developed without significantly impacting the North Slope environment

NATURAL GAS HYDRATES

Methane gas hydrates are a highly concentrated crystalline form of natural gas that occurs in deep ocean basins and in arctic regions. The United States Geologic Survey estimates Alaska's North Slope methane hydrates at 590 trillion cubic feet, with an additional 32,375 trillion cubic feet in the Beaufort and Chukchi Seas.

The location of methane hydrates near proven conventional gas reserves makes the North Slope the premier area for methane hydrate research and future production.

Analysis shows that North Slope gas hydrates should produce at commercial rates. This analysis must be tested through a government-sponsored research program and possibly followed by royalty or tax relief for hydrate development. If successful these tests could substantially extend the life of an Alaska natural gas pipeline project.

ALASKA NATURAL GAS PIPELINE

Last October Congress enacted and the President signed into law the Alaska Natural Gas Pipeline Act. This essential legislation cleared the way at the Federal level for processing applications for an Alaska Gas Pipeline and also provided loan guarantees that will reduce the risk of this essential national interest project.

As required by the Act, the Federal Energy Regulatory Commission has moved quickly to put out for public comment proposed open season regulations that will govern access to the Alaska gas pipeline. Yesterday, the FERC issued its final regulations. We welcome that swift action and are reviewing the regulations to ensure that they satisfy the Congressional mandate on access.

As part of the open season rulemaking, the four FERC Commissioners traveled to Anchorage and held a public hearing on the regulations in early December. For the Commission itself to hold a hearing out of Washington DC was unprecedented. The commitment of the Commission to hear Alaskans on this vital issue was well received and I applaud the Commission for doing so.The Department of Energy is also beginning to organize its process for hearing interested parties and working out the details of the federal loan guarantees authorized by October's l [illegible]

The State of Alaska has been busy doing its part to foster an [illegible] Gas Pipeline. A recent state law enables Alaska to provide [illegible] royalties to a qualifying Alaska gas pipeline. A numl [illegible] qualified projects. As we speak, the State is engaged in very active fiscal contract negotiations with the three major North Slope producers—Exxon Mobil, BP, and ConocoPhillips—and also with TransCanada. In addition, the State is analyzing the merits of the Alaska Port Authority proposal to transport liquefied natural gas from Alaska to the US West Coast. The State's objective is clear—do what it can to bring a pipeline to fruition at the earliest feasible date. My objective is to submit one or more Stranded Gas Act contracts to the State legislature this session.

As part of these negotiations, the State is prepared to put its money where its mouth is. I have announced that the State is willing to invest its own capital to take a risk position in the pipeline. One way we could do this is to invest in the pipeline itself—take a multi-billion dollar stake. This is an active part of the negotiations.

Mr. HALL. I thank you, and you are exactly right. And thank you for your time, and not just today, but from here back and here forward. We need you, and we do excuse you at this time. And thank you. I express our appreciation to Mrs. Showalter for conceding to the Governor, and recognize you now for as much time as you use.

STATEMENT OF HON. MARILYN SHOWALTER

Ms. SHOWALTER. Thank you, Mr. Chair. I am Marilyn Showalter. I am the President of the National Association of Regulatory Utility Commissioners, and as State regulators, we are the ones who see that utilities fulfill their obligations to provide their customers with reliable and safe electricity. And we are also the ones who pass the bills on to the customers, and who face them directly when they have a concern.

I have submitted written testimony, but I want to emphasize two points here. First is our very strong support for the reliability provisions in the bill, and I am referring to last year's conference report. And second is our very strong concern over the siting provisions in the conference report, namely, the Federal backup authority.

With respect to reliability, NARUC has long supported mandatory reliability standards, and we support the current language. I want to emphasize that we do support the current language, and are somewhat concerned if that would be changed. Notably, the current language reserves to the States their appropriate roles regarding resource adequacy and safety and planning. I would caution against injecting into the reliability provisions language that actually deals with economic regulation. When you think about what reliability is, it is the physical integrity of the system. It deals with the physical operation and standards, and these standards can and must obtain, regardless of what form of economic regulation you have, and the current language does that.

With respect to siting, we oppose the current language. We feel, as I think Governor Murkowski said, that the States are the appropriate place to make siting decisions, and have done so. For a minute, think again physically what transmission is, is part of an integrated physical system, the other parts being generation and demand. So the first thing that States do is decide, along with the utilities serving their customers, what is the appropriate alternative.

To give an example, one of my utilities, Puget Power recently needed to provide more resources for the customers, and the lowest hanging fruit was conservation. That doesn't take any transmission or generation. The second thing they did was buy a natural gas plant that was conveniently located, and did not require a transmission. But the third and fourth resources they are planning to acquire are wind, which is on the other side of the mountains, and does entail transmission. But these are important decisions for a utility and the State to make in a sound fashion, and it becomes difficult if the transmission is isolated.

The second aspect of this is that it may not be the case that providing Federal backup authority solves any problem. Again, I can cite to a utility in our State, Avista, which serves Spokane. It has recently completed, or sited, 3 different transmission facilities. One involves two States, Idaho and Washington, involved 15 miles of new right of way, 45 miles of existing right of way, and it was able to site and resolve, get all the necessary permits in 8 months, which is quite fast. Two other transmission projects that they recently completed took 2 years and two and a half years, from the very beginning, of design, all the way through environmental review, public process, permitting, and construction, took 2 years and two and a half years. When you introduce a new decisionmaker, namely, the Federal Government, I think it changes the dynamic. In the cases I mentioned, the utility was quite adept at forming a collaborative process with local governments and other stakeholders, and was able to achieve what it did. But I think it points out that States are capable of siting, and it may change the successful sitings to introduce the possibility of a second bite at the apple.

Thank you very much.

[The prepared statement of Hon. Marilyn Showalter follows:]

PREPARED STATEMENT OF HON. MARILYN SHOWALTER, NATIONAL ASSOCIATION OF REGULATORY UTILITY COMMISSIONERS

Mr. Chairman and members of the Committee, I am Marilyn Showalter, Chairwoman of the Washington Utilities and Transportation Commission and President of the National Association of Regulatory Utility Commissioners (NARUC). On behalf of NARUC, thank you for this opportunity to share our views with you today.

NARUC is a quasi-governmental, nonprofit organization founded in 1889. Its membership includes the State public utility commissions for all States and territories. NARUC's mission is to serve the public interest by improving the quality and effectiveness of public utility regulation. NARUC's members regulate the retail rates and services of electric, gas, water and telephone utilities. We have the obligation under State law to ensure the establishment and maintenance of such energy utility services as may be required by the public convenience and necessity, and to ensure that these services are provided at rates and conditions that are just, reasonable and nondiscriminatory for all consumers.

NARUC has commented many times on the various energy proposals and drafts that have been reviewed by the members of this Committee during the preceding Congresses. The positions expressed in this testimony are consistent with the positions expressed by NARUC during the energy deliberations that occurred in the 108th Congress.

Conference Report 108-375 (to accompany H.R. 6), which was passed by the House of Representatives in the 108th Congress, includes many positive provisions which NARUC strongly supports including, the reliability section, LIHEAP and weatherization authorization of appropriations, Price—Anderson reauthorization, support for clean coal technologies, renewable energy production incentives, efficiency programs, and enhanced penalties under the FPA, to name but a few. However, comments today will be focused on the electricity title (Title XII) of the Report language.

RELIABILITY STANDARDS

NARUC has consistently held that reliability should be addressed in energy legislation. NARUC has been a strong and consistent supp that establishes a more robust, mandatory model for the enforcement of compliance with mandatory technical reliability standards, provided, however, that States are not preempted on resource adequacy, safety, security, and planning issues and can form voluntary regional bodies to advise FERC on implementation of the standards within their regions. Therefore, NARUC believes that Congress should mandate compliance with industry-developed reliability standards on the transmission system and preserve the authority of the States to set more rigorous standards when in the public interest.

To that end, Congress should include in any reliability legislation a savings clause to protect existing State authority to ensure reliable power delivery service, and a regional advisory role for the States. Additionally, Congress should ensure that States continue to have the authority to establish effective price signals that allow consumers to choose alternative levels of reliability and power quality. Accordingly, NARUC supports the electric reliability provision found in Subtitle A of the Conference Report passed by the House last Congress.

TRANSMISSION SITING

We appreciate the efforts that have been made in an attempt to alleviate the concerns raised by NARUC and other State and local government organizations with regard to the siting proposals floated during the last Congress. However, NARUC must respectfully oppose Sec. 1221 of the Conference report due to the FERC backstop provision that is included. Although efforts have been made to produce a more moderate backstop proposal, the result is the same: FERC will have authority to override State decisions on transmission siting.

NARUC opposes this FERC-override provision. States should retain authority to site electric transmission, generation, and distribution facilities. Congress should support the States' authority to negotiate and enter into cooperative agreements or compacts with Federal agencies and other States, in order to facilitate the siting and construction of electric transmission facilities. And Congress should support the State's authority to consider alternative solutions to such facilities, such as distributed generation and energy efficiency. NARUC is strongly opposed to any role (direct or backstop) for FERC in authorizing or siting transmission lines.

Building additional transmission, distribution and generation can be difficult. A major impediment to siting energy infrastructure in general, and electric transmission in particular, is the great difficulty in getting public acceptance for needed facilities. Few examples have been documented however, beyond anecdotal accounts, that a State action (or inaction) is solely responsible for unreasonably preventing a needed transmission project. Further, the limited examples that may exist do not warrant Federal pre-emption. Shifting siting responsibility from State government to the Federal government will not necessarily make siting energy delivery infrastructure any easier. There is no "quick fix" to a difficult siting issue, but States are better positioned to identify and evaluate alternatives to a specific project. For example, a State may determine that a transmission line is not necessary if distributed generation is used instead, saving valuable resources and protecting citizens from unnecessary effects of the transmission project. Additionally, States are better positioned to hear and consider comments from affected citizens and businesses.

TRANSMISSION OPERATION

NARUC is pleased that section 1232 takes a voluntary approach to Regional Transmission Organizations (RTOs). Section 1232 of the Report language allows for more latitude in the development of wholesale power markets than a generic "one-size-fits-all" approach.

Regarding section 1236, NARUC believes that native load customers should be held harmless with respect to such issues as their priority of service, quality of service, and allocation of joint and common costs. These customers have borne the vast majority of the costs of their utility's transmission facilities. Because the utility's obligation under State law or FERC-approved contract is to provide these consumers reliable and affordable service, they should not bear any burden due to an open access transmission regime. Further, NARUC supports Federal transmission policies that assist in the evolution to economically and environmentally efficient regional power markets that provide benefits to all customers.

TRANSMISSION RATE REFORM

NARUC members are aware of the need for adequate investment in energy sector infrastructure. However, section 1241, which would provide rate incentives for RTO participation, fails to recognize that currently, under State laws, utilities are generally required to obtain State commission approval to participate in RTOs, if RTO membership requires the utility to relinquish control or divest the transmission facilities held in the retail rate base.

With regard to section 1242, NARUC is supportive of transmission cost allocation proposals. NARUC supports a pricing policy which allocates transmission costs in two ways. First, those costs needed to maintain the reliability of the existing transmission system, should be recoverable through rates paid by all transmission customers. Second, the cost of upgrades and expansions that are necessary to support incremental new loads or demands on the transmission system should be borne by those causing the upgrade or expansion. Additionally, any cost allocation proposal should not preclude the assignment of interconnection cost to the general body of ratepayers within a State when that State's regulatory body determines that such allocation is in the public interest.

PURPA/NET METERING/REAL-TIME PRICING/TIME OF USE METERING

NARUC opposes language in section 1253, which would pre-empt State jurisdiction by granting FERC authority to order the recovery of costs in retail rates or to otherwise limit State authority to require mitigation of PURPA contract costs. Regarding sections 1251 and 1252, NARUC regards Net Metering, Real-Time Pricing and Time of Use Metering as retail issues that ought to be subject to State jurisdiction rather than Federal legislation. We are pleased that the legislation provides that each State has the ability to determine if the services in sections 1251 and 1252 are appropriate for State implementation. The long-standing NARUC position is that implementation of these programs should be of the States' own choosing, in the States' own time, and not forced on States under timelines and minimum standards of FERC's choosing.

PUHCA

Congress should reform the Public Utility Holding Company Act (PUHCA), but in doing so, should allow the States to protect the public through maintaining effective oversight of holding company practices and expanding State access to holding company books and records, independent of any similar authorities granted to the Federal regulatory bodies. NARUC believes that Subtitle F fits within our criteria for support.

MARKET TRANSPARENCY, ENFORCEMENT, AND CONSUMER PROTECTION

There is an increased need for oversight of the energy markets in order to protect against market abuse. Electricity price volatility has raised concerns about the integrity of wholesale markets, suggesting a much greater need for monitoring of these markets by regulatory bodies. The legislation does not address a critical concern, the State regulatory role in market monitoring. States can provide a "first responders" view of energy markets.

However, in order to be an effective market monitor, the State regulators must have access to all necessary data, including but not limited to generating plant production, fuel sources, heat rates, and both scheduled and actual transmission path flows. State regulators must have the ability to review this type of data in order to be able to detect market gaming and attempts to obtain and exercise unlawful market power. The electric industry restructuring efforts of the federal government and the various States are based on an assumption that wholesale markets are workably competitive. To that end, policy makers must have the ability to provide confidence to an already skeptical and uneasy public that the market is not being "gamed." This confidence can be provided only if regulators are able to access the data necessary to ensure that the market is functioning in a truly competitive fashion. To the extent that data is currently shared among market participants for purposes of reliability, Congress should ensure that it is also available to regulators and the public.

There is a real concern that the energy markets are vulnerable to manipulation, and there needs to be an improvement in the reliability of the indices used. A minimum set of standards should be established for how price reporting occurs. Regulatory oversight of price reporting and the ability to impose penalties on traders that don't comply with the rules should help ensure that energy companies follow the rules.

The energy industry must adopt a set of practices and benchmarks to incr
market transparency and to help restore public confidence in t US en
kets. If the goal of legislation is to ensure that the mark
nipulate the market, the policies ought to provide for
Claims that data-reporting to State regulators will
tages to those reporting are spurious. To the extent

cially sensitive, State regulators can provide appropriate protections. States routinely and frequently handle such information without compromising parties' interests.

NARUC is pleased that the Conference Report included a State authority provision in section 1287 to complement Federal consumer protection procedures. NARUC's members have a long-standing commitment to consumer protection. Indeed, State utility commissions were established to ensure that consumers receive essential services without fear of predatory practices and pricing.

The States are capable in dealing with abuses that occur at the retail level. In fact many of the States that have moved to restructure and unbundle their retail electric markets have in place laws and regulations that address the consumer issues found in section 1287.

MERGER REFORM

The economic efficiencies associated with free and substantial competition may not be realized if mergers have an adverse impact on competition in the generation market. In most instances, State commissions have a responsibility to ensure that mergers do not adversely affect the availability of electricity at just and reasonable rates.

A clear regulatory policy on mergers has several benefits, including (a) giving prospective merger partners more certainty on how regulators will treat their proposals, (b) increasing the likelihood that the actions of the merging parties will be consistent with the public interest, (c) assisting regulators in distinguishing efficient from inefficient mergers and mergers which increase competition from mergers which impede competition, and making the review process more efficient by reducing the need to relitigate generic policy issues in each case. Federal and State regulators should thoroughly evaluate electric utility mergers to assess their impact on competition in the generation market, access to transmission facilities and ultimately on electric rates. Proposed mergers that adversely affect generation competition or create situations in the relevant electric markets that are inconsistent with antitrust laws should be disapproved. FERC should be required to establish a process for review of a merger application that provides for effective State participation.

NUCLEAR WASTE FUND REFORM

NARUC believes that any comprehensive energy legislation should include, at minimum, a section that addresses the issue of the Nuclear Waste Fund. In 1982 the Nuclear Waste Policy Act established policy that the Federal government is responsible for safe, permanent disposal of all high-level radioactive waste, including spent nuclear fuel from commercial power reactors.

Since 1983 ratepayers in States using nuclear-generated electricity have paid over $23 billion in fees and interest, via their electric utility bills, to the Nuclear Waste Fund (NWF) in the U.S. Treasury in what was to have been a self-financed waste disposal program. Unfortunately, Congress historically has only appropriated a small fraction of the amount of revenue going into the NWF to develop the waste repository... resulting in a balance in the Fund, now over $16 billion. Previous attempts to address the gap between NWF revenue and annual appropriations have been either embroiled in nuclear waste politics or faced other obstacles.

Comprehensive energy legislation should include a section to reclassify fees paid by utilities to the Nuclear Waste Fund as discretionary offsetting collections equal to the annual appropriations from the Fund or by other means that achieves the result of having appropriations match Fund revenue. A good starting point would be the language found in H.R. 3981 or HR 3429, both introduced in the 108th Congress.

Thank you for your attention and the opportunity to comment today. I look forward to your questions.

Mr. HALL. Well, thank you very much. At this time, Vic, we recognize you. I am proud to have my fellow Texan here, a guy with a history of success. Our Governor Perry appointed him to fill the unexpired term of Tony Garza, who went to Mexico as Ambassador, and your abilities were immediately recognized by the other two members, made you Chairman, I think, after about 4 months you had been there. And you ride herd on the most important entity for the State of Texas. You were appointed by the Secretary of Interior to serve as our representative to the Outer Continental Shelf

Advisory Committee, and we thank you for that, and recognize you at this time for as much time as you take.

STATEMENT OF HON. VICTOR CARRILLO

Mr. CARRILLO. Thank you, Mr. Chairman, and it is always good to see you, and members, thank you for the opportunity to appear before you here today. For the record, my name is Victor Carrillo. I am Chairman of the Texas Railroad Commission, and in spite of our name, we primarily oversee the oil and gas industry, the pipeline sector, and surface mining in my home State. My background is also, in the energy sector, as a former exploration geologist and geophysicist and oil and gas attorney, and now, as a statewide elected official.

I am here today representing the Interstate Oil and Gas Compact Commission, or IOGCC. IOGCC member States produce over 99 percent of the oil and natural gas produced onshore in the U.S. Formed in 1935, the IOGCC is a Congressionally ratified interstate compact that include 30 member and 7 associate States, and our 2005 Chairman is Governor Murkowski of Alaska. The IOGCC's mission is twofold. It is to promote conservation and efficient recovery of domestic oil and natural gas resources, while protecting human health and the environment. And though many would have you believe that those dual goals are mutually exclusive, let me assure you that they are not. Responsible oil and gas development and stewardship of our land and water resources can both be accomplished simultaneously. We see it done daily, in Texas, and I am sure Governor Murkowski sees it daily in Alaska.

We hear a lot about imported oil and our dependence on foreign oil. It may come as a surprise, however, that our country is still our own single biggest supplier of oil produced domestically either onshore or offshore, larger than the individual contributions from Saudi Arabia or Mexico or Canada. This is production from our States, from Texas, from Alaska, from the other IOGCC States. In Texas, for example, we produce about 6 trillion cubic feet of natural gas per year, which represents over 25 percent of the total U.S. demand for that clean burning fuel. Together, the IOGCC States still produce a great deal of the energy we all critically need to fuel our cars, heat our homes, and power our economy.

It seems at times that with this misunderstanding of the U.S. role in supplying our own oil and gas comes acceptance that importing more oil is our best or only option. It is not. With proper policies in place, the domestic oil and gas industry will continue to help to supply that demand for the foreseeable future.

And while Texas and the other IOGCC member States are oil and gas producing States, we are also consuming States that share all of the concerns of States without oil and gas production. In fact, while Texas is the top oil and gas producing State, Texas also ranks first in overall energy consumption. We all need a steady source of energy at reasonable and stable prices. A secure source of domestically produced oil and gas is in everyone's best interest, producing and consuming States alike.

The IOGCC has produced an energy policy d
Dependent Nation." You should have this in
Texas, we recently completed a yearlong

Texas energy plan. I chaired that effort, and we developed 10 key recommendations that we believe form the foundation for a safe, stable, and secure energy future for Texas. Our plan, much like what you are focusing on here today, recognizes the importance of domestic oil and gas industry, highlights the need for funding to encourage R&D in emerging technologies, recognizes the need for additional energy education, recognizes the need for efficiency and conservation measures, and encourages diversification of our energy sources to include liquefied natural gas, clean coal technologies, gasification, and renewable energy, such as wind, solar, and biomass.

These are many of the same issues that you are dealing with on a national level. The U.S. indeed needs comprehensive energy policy, from the top, that recognizes the possibilities and moves us toward solutions. And based in part on my experience in Texas, I can say that the bill before this committee, the Energy Policy Act of 2005, is a very positive step forward. The bill's oil and gas provisions would significantly advance the cause of helping the U.S. to maintain, or maximize, rather, the production of its domestic oil and natural gas resource. In particular, the IOGCC is highly supportive of the bill provisions dealing with access to public lands, production tax incentives, marginal wells, orphaned and abandoned wells, hydraulic fracturing, and stormwater runoff.

In wrapping up, let me briefly address two other issues, energy education and research and development. Many of the problems we face would be greatly eased with better public understanding of energy and its important role in our economy. The public's relative lack of understanding of the energy industry poses a real barrier to ongoing development of our natural resources. We urge the Federal Government to join the Governors of the IOGCC in contributing to the development of and funding for national energy education.

Finally, I muse voice concern regarding the administration's proposal in this week's budget to terminate the Fossil Energy Oil and Natural Gas Program at DOE. The IOGCC believes strongly that this R&D program is essential for domestic producers to keep pace technologically. Small and medium-sized oil and gas producers in particular, who incidentally drill most of the onshore wells in the U.S., simply do not have the budgets to conduct their own R&D, and technological advancements allow industry to find and produce more domestic oil and gas more efficiently, and even where we already know it to exist.

So let me say that technology should be fostered and encouraged. I commend you on proposing a comprehensive, balanced energy plan. I thank you for the opportunity to present before you today, and I stand ready to work with you, and to attempt to answer any questions you may have.

[The prepared statement of Hon. Victor Carrillo follows:]

PREPARED STATEMENT OF VICTOR CARRILLO, CHAIRMAN, TEXAS RAILROAD COMMISSION

Good afternoon. My name is Victor Carrillo. I am the Chairman of the Railroad Commission of Texas. I am here today representing the Interstate Oil and Gas Compact Commission (IOGCC). With the permission of the committee, I'd like to submit a statement and the attached publications for the record. My statement today will highlight those comments.

The member states of the IOGCC produce more than 99% of the oil and natural gas produced onshore in the United States. Formed in 1935, the IOGCC is a congressionally ratified interstate compact. As an organization, the IOGCC is the nation's leading advocate for conservation and wise development of domestic petroleum resources. The organization includes 30 member and 7 associate states. The mission of the IOGCC is two-fold: to conserve our nation's oil and gas resources and to protect human health and the environment. Always chaired by a Governor, our Chairman in 2005 is Governor Murkowski of Alaska.

We hear a lot about imported oil—about our dependence in this country on upon foreign oil. It may come as a surprise, however, to most Americans to learn that we Americans are still our own biggest supplier of oil—produced domestically either onshore or offshore. This is by and large production from our states, like my state, the state of Texas or the 29 other member states of the IOGCC. Together we still produce most of the energy we so critically need—to fuel our cars, heat our homes, and power this country's economy.

It seems at times that with this ignorance of the role of America in supplying its own oil and natural gas, comes acceptance that importing more oil is our best or only option. It isn't. With the right policies in place it most certainly doesn't have to be. Plus, no country in the world produces its oil and natural gas to higher environmental standards. The states are proud of these environmental standards—and yes it is largely state standards, not federal standards, which dictate how our oil and natural gas is produced here at home.

Much of the oil we import is produced with lower environmental standards, risking ground and surface waters, and often with rampant flaring of natural gas that is produced along with the oil but where no market for that gas exists. Every barrel of oil imported must also ply the high seas in tankers risking the world's shorelines.

Yet here at home we often wring our hands and bemoan the harm to the environment that will be done when we produce here at home—never really getting the facts but willing to accept most of our information from the soundbite-sized wails of the most vocal nay-sayers. I am here to report, however, that the sky isn't really falling.

I'd also like to point out that while my state of Texas and the other member states of the IOGCC are oil and natural gas producing states, we are also consuming states and therefore share all of the concerns of states without oil and natural gas production. We all need a steady source of supply at reasonable and steady prices. A secure source of domestically produced oil and natural gas is in all of our interests—producing and consuming state alike.

Thus one message I would like to convey here today is that with the right policies in place there is nothing that should stop America in the years ahead from remaining its own biggest supplier of oil and natural gas—to the benefit of all of America. But America does need a policy from the top that recognizes the possibilities and moves us toward solutions. Several years ago the IOGCC produced an energy policy document entitled "A Dependent Nation: How Federal Oil & Natural Gas Policy is Eroding America's Economic Independence." A copy of this document is attached for the record. In this document the governors from oil and natural gas producing states, through the IOGCC, offer their views of what our national energy policy should be. This document defines the true cost of imported oil, promotes the expansion of research and development efforts, urges a re-examination of oil and natural gas development policies and encourages the conservation of the nation's petroleum resources.

My own state of Texas has recently undertaken a process to produce a Texas Energy Plan 2005. Created by the Texas Energy Planning Council, the Texas Energy Plan 2005 contains 10 recommendations—forming a blueprint of energy issues and actions for the state's lawmakers to take under consideration this year. As Chairman of the council, I worked with 21 energy production legislative and industry leaders to come up with these recommendations. While I don't have the ability to detail these actions today, I feel strongly that we have addressed the key energy issues facing Texas. The plan's recommendations address many of the same issues dealt with in the Energy Policy Act of 2005 and which I will highlight today. T include Tax Incentives, Marginal Well Incentives, Energy Education and Res and Development.

Based on my experience in Texas, I can say that the bill before today, the Energy Policy Act of 2005, is a very positive step forwa natural gas provisions of this bill do advance the cause of helping mize the production of its domestic oil and natural gas resource.

I will address some of these provisions directly.

First, however, I would like to voice a grave concern of the oil and natural gas producing states concerning the Administration's proposal in this week's budget submission to Congress to terminate the Fossil Energy Oil and Natural Gas Program at the U.S. Department of Energy (DOE). The IOGCC believes strongly that DOE's Fossil Energy Oil and Natural Gas R&D Program is absolutely necessary in order for United States domestic producers to keep pace technologically. Our small and medium-sized oil and natural gas producers—who drill most of the wells onshore in the U.S.—do not have the budgets to conduct their own R&D. The modest DOE Fossil Energy oil and natural gas budget (just under $80 million last year) provides our domestic producers with the technological edge to keep producing and to keep domestically produced oil and natural gas flowing into our economy.

R&D spending can help lower finding costs, improve drilling efficiency and recovery rates, prolong production from marginally economic wells, minimize losses to the atmosphere, improve transportation efficiency and the updating of infrastructure. The U.S. Department of Energy has done a remarkable job with a tiny research budget over the years. Not only do we not recommend terminating this valuable program but would recommend yearly increases in research dollars directed toward oil and natural gas research and development. We encourage this committee to voice its concerns with the Administration's proposals in this area.

I have attached a copy of the IOGCC publication entitled "Who Will Fund America's Energy Future." IOGCC Resolution 03.102 concerning R&D is also attached.

The following are some specific comments on the oil and natural gas provisions contained in the Energy Policy Act of 2005:

Access to Public Lands. One of the ways we can expand our domestic oil and natural gas supply—to bring more domestically produced oil and natural gas to market—is to more fully appreciate the crucial role public lands and access to those public lands play in assuring adequate supplies of domestically-produced oil and natural gas. The states of the IOGCC do not believe that the role public lands play in ensuring heat for our homes and power for our economy is adequately appreciated by energy-consuming America.

We also need public lands on which to build the pipelines and other infrastructure necessary to bring oil and natural gas into our cities and into our homes. Restricted access to public lands also impacts the ability to build the pipelines necessary to transport that resource, particularly natural gas, to markets.

Access restrictions come in a myriad of forms, some more obvious and some more onerous than others. They range from outright prohibition on activities to new processes and requirements which slow and increase the cost of drilling or building necessary pipeline or other infrastructure.

Examples of outright prohibitions on public access include Monument designations and the U.S. Forest Service's Roadless Plan. This Roadless Plan as initially proposed would have prohibited road building in 58.5 million acres of public lands where no roads presently exist. Reports in the press indicated that this plan could lock up more than 20 TCF of natural gas. This is equivalent to approximately one year of present U.S. natural gas demand.

We applaud those provisions of the Energy Policy Act of 2005 which attempt to address this complex issue. IOGCC Resolution 02.123 is attached. Resolution 02.123 urges "the Need the a National Energy Policy and Increased Access to Public Lands for Environmentally Sound Natural Gas and Oil Production."

Tax Incentives. Tax incentives are a powerful tool to help increase the supply of natural gas. The states have proven this with their own tax incentives and IOGCC studies have documented the success of state tax incentives. Reference is made in particular to two IOGCC publications: "Making a Wise Investment: The Economic Impact of Oil and Gas Incentives" and "Investments in Energy Security: State Incentives to Maximize Oil and Gas Recovery." Copies of both IOGCC publications are attached.

The incentive programs to assist the oil and natural gas industry, documented in these publications, have proven to be a valuable countermeasure against global price volatility. In 1999, when Investments in Energy Security was first published, 28 states reported some type of oil and natural gas incentive program. Basically these incentives fell into two categories: those providing some type of tax benefit (monetary) and those that are beneficial while providing no direct state monetary relief.

The combined impact of the incentives was a net $113.2 billion in economic effects. States invested $2.8 billion to generate these economic effects through tax reductions. This $2.8 billion helped ensure more than 30 times that much for state economies. In turn, states investing the $2.5 billion received more than $9 billion in state and local taxes, yielding an additional $2 for every dollar invested.

Additionally, a principal beneficiary of state efforts was the federal government, which realized approximately $2.5 billion in additional tax revenue while the states shouldered the risk.

Had these incentives not been in place, many wells, particularly marginal oil and natural gas wells (defined as wells producing 10 barrels or less per day of oil or 60 Mcf or less of natural gas) would have been abandoned during the 1997-1998 price collapse. This would have meant valuable oil and natural gas lost forever. Had these wells been abandoned during the price collapse, the state and local economies would have lost almost $400 million in revenue. More importantly, the collective economies would have lost $3.5 billion.

While difficult to enact in tough economic times, the incentive programs adopted by the states represented a fortress standing alone against global vicissitudes, protecting both the domestic oil and natural gas industry and all state economies.

Reference is also made to the attached IOGCC Resolution 02-122 "Pertaining to a Heightening National Crisis in Natural Gas Production and Supply Stability". Among other things the resolution calls for the President and Congress, in consultation with the states, to adopt without delay measures which will create long-term incentives for the development of conventional and unconventional sources of domestic natural gas and oil through the extension of existing programs and the development of new initiatives including, but not limited to, the extension of Tax Code Section 29 credit for production from unconventional sources.

Marginal Wells. Another important issue is marginal wells. I am attaching a copy of the 2004 edition of the IOGCC's publication entitled "Marginal Oil and Gas: Fuel for Economic Growth." This report represents the only place where one can obtain statistics on marginal oil and natural gas wells in the United States. Marginal wells are wells that produce miniscule quantities of oil and natural gas daily. (Marginal oil wells are defined as wells producing 10 barrels of oil per day or less. Marginal gas wells are defined as producing 60 thousand cubic feet (Mcf) per day or less.) In most parts of the world, these wells would have been shut in years ago. In America, they are a significant energy resource. Marginal oil wells in America produce about 15% of our domestic oil production and over 7% of our natural gas production. There are almost 400,000 marginal oil wells that produced more than 313 million barrels of oil in 2003.

The reason they exist is largely because of tax incentives from the states that allowed them to remain economic in years when oil prices were low. Now that they are high again, these wells remain to contribute to our country's energy needs.

The energy bill has several provisions dealing with marginal wells and we applaud Congress' recognition of this important national resource.

Orphaned and Abandoned Wells. There exist in the United States approximately 57,000 "orphan" oil and natural gas wells. These are wells that are no longer being produced, are idle without approval of the state, and for which the operator (who drilled and/or operated the wells) is unknown or insolvent. The wells were usually drilled and operated before states began rigorous regulation of oil and natural gas production. The wells often pose a significant environmental risk—of contamination of ground and surface waters—unless and until they are properly plugged and abandoned under supervision of the state. While most states have resources directed to solving this problem, it is never enough to take care of the problem. I have attached the IOGCC publication entitled "Produce or Plug?: The Dilemma over the Nation's Idle Oil and Natural Gas Wells."

The Energy Policy Act of 2005contains important provisions which addresses the orphaned and abandoned well issue in three respects: 1) assessing and addressing the problem on Federal land, 2) authorizing a program of technical assistance to the states through the IOGCC, and 3) creating an Orphaned Well Reclamation Pilot Program. The IOGCC strongly supports these provisions.

Hydraulic Fracturing Regulation. Another issue that has the potential to limit natural gas development in the future is the impact of the *LEAF v EPA* decision on hydraulic fracturing in the United States. Hydraulic fracturing is a decade's old process for completing over 90% of the oil and natural gas wells drilled in the United States. In the past, the states have been responsible for regulating this process. In 1994, an environmental group in Alabama sued the Environmental Protection Agency contending that natural gas wells should be regulated as un [illegible] d injection wells under the Safe Drinking Water Act (SDWA). Based on the [illegible] of "injection" contained in the SDWA, the 11th Circuit Court of Ap [illegible] the EPA should regulate hydraulic fracturing even tho [illegible] process are immediately sucked out of the well after [illegible] in the rock to free the natural gas.

Not only have the states traditionally regulated h [illegible] survey concluded that not a single instance of h in over one million hydraulic fracturing operations. Thus, state regulation has proved effective in protecting drinking water from all drilling activities, including hydraulic fracturing. In these circumstances, another layer of regulations at the Federal level would not result in cleaner water but only in adding significant cost. Such unnecessary regulation and the concomitant cost can only serve to retard the development of much needed natural gas in this country.

The IOGCC has a resolution, No. 03.101, attached, addressing this issue. The IOGCC applauds the provisions of the Energy Policy Act of 2005 in this respect.

Stormwater Runoff. The Environmental Protection Agency has proposed a regulation extending the requirement for a pre-construction Federal permit under the Clean Water Act (CWA) to encompass building sites of one acre. In doing so, EPA has interpreted the oil and gas exemption in the CWA as not including the construction period for the well site and any needed road to the site. However, the EPA has opined that, as soon as drilling begins, the exemption does apply. Thus, EPA's proposed rule would only apply to the short construction period (days or a week) for most sites in the lower-48 states. It is estimated that this new permitting requirement could delay drilling operations by months.

The IOGCC supports the provisions of the Energy Policy Act of 2005 which address this critical problem.

I would like to also mention one other area of great concern to the states and the IOGCC. It is the critical need in this country for energy education.

Energy Education. Many of the problems we face would be greatly eased with a better public understanding of energy and its important role in our economy. The public's relative lack of understanding of the energy industry poses a real barrier to oil and natural gas production in this country. Too often, under the banner of environmentalism, natural gas development projects are held up and delayed based on misinformation and lack of understanding. The lack of energy education in this country can be viewed as an important barrier to natural gas development. IOGCC Resolution 03.105 "Urging the Need for a National Energy Education Program" is attached.

The IOGCC urges the federal government join the governors of the IOGCC in contributing to the development of a national educational program. The IOGCC has also proposed a publicly funded energy education program. Managed by the Energy Education Coordinating Council, this wide-ranging program would seek to reach all Americans with the facts, risks, benefits, and costs associated with our energy supplies and choices.

Thank you for the opportunity to appear here today. If we can provide any additional information, please do not hesitate to ask.

Mr. HALL. And I thank you for that, and I thank you for your leadership in that Gas Compact Commission, and your testimony kind of parallels Mrs. Showalter's testimony on page 4, about the difficulty of public approval, and I will ask her some questions about that. But first, let me just get you to expand a little. You touched on it at the end of your comments, but in your testimony, you state that your organization strongly believes that DOE's Fossil Energy Oil and Natural Gas Program is absolutely necessary in order to keep the United States, domestic producers to keep pace technologically.

Tell us once again why such research can't be shifted, maybe, to private industry, as the DOE has suggested, or how we might better work out of the dilemma?

Mr. CARRILLO. Certainly, Mr. Chairman, and we have seen over the years a lot of that R&D development that had been going on in the private sector, that has gone away. So it is incredibly important to maintain such a program at the DOE. I believe the budget is roughly $80 million or so, which is a lot of money, but in the grand scheme of things, not all that much. And it is these technological advancements that allow industry, again, to find and produce more domestic oil and gas. It is technological advancements like horizontal drilling, enhanced fracture techniques, for example, that have allowed, back in Texas, the Barnett Shale Gas play, near Dallas/Fort Worth, to develop into the largest producing gas field in Texas, and one of the hottest gas plays, really, in the Nation.

The USGS estimates that almost 30 tcf, 30 trillion cubic feet of gas, can be found in that one play. Technology should be fostered and encouraged, and we encourage this group, in fact, to voice concerns over that one provision in the budget, also.

Mr. HALL. Thank you. Mr. Caruso, how much of a contribution do you see additives such as ethanol making in the domestic supply of gasoline with and without the Energy Policy Act of 2005's renewable fuel standard? Where are we that, and expound on that a little bit for the record, please.

Mr. CARUSO. In our base case, or the reference case, that I presented this morning, ethanol would account for about 4.5 billion gallons by 2025, and in the Energy Policy Act that was proposed last year, was the requirement to go to 5 billion gallons by 2012. So clearly, if the energy bill were passed, it would be substantially higher. I believe the number we had in the analysis we did of the bill was that it would be—exceed 6 billion gallons by 2025, compared with 4.5 under our business as usual outlook. So it would add more than 1.5 billion gallons.

Mr. HALL. I thank you for that. Ms. Showalter, I alluded to a page of your testimony. You oppose any FERC role in siting transmission, even a backup or a backstop role. You also state that one reason for the difficulty is public approval, and your colleague has concurred with you there, basically. But doesn't this argument for some form of FERC backup jurisdiction, to look at overall national needs when local interests might prevent needed transmission work into your theory? Give us the benefit of your feelings on that.

Ms. SHOWALTER. Well, the fact that siting can be difficult, and I should say, I don't think it always is, but the fact that it can be I don't think means that the Federal Government is the best place to resolve it. Siting decisions are difficult. And that is what we are paid to do. Everything we do is difficult. Our rate cases are difficult. They involve competing principles, competing parties, and a lot of money, and siting is like that. I think that the issue is what level is best able to resolve these things, in the main. It would be very unfortunate if, because of a single siting problem somewhere, the whole country went to a Federal oversight, and that had the effect of bogging down a lot of siting that does get accomplished, and that was the point I was trying to make. If State officials know that they are the ones who are going to have to make this decision, and be held accountable for it, they do take their job very seriously. If you know that you don't have to make that hard decision, because maybe somebody else will make it for you, or if all the parties know that, you introduce kind of a two step process, it seems to me in many cases that will slow down the [illegible] rather than speed it up.

Mr. HALL. Well, I guess, you [illegible] I [illegible] fessor asked a student did he [illegible] apathy, and he said [illegible] didn't [illegible] citing that as your [illegible] would be times when trouble and the knowledge to participate, or I think you have indicated that in some States, they prevent it?

Ms. SHOWALTER. Well, I have to say, in my experience from the West, I don't know of a single transmission facility that has not been sited and completed.

Mr. HALL. Okay.

Ms. SHOWALTER. That is the evidence, and I am aware that there may be a problem in New England.

Mr. HALL. That is good testimony, and I thank you for it. Mr. Boucher, I recognize you at this time for as much time as you would like.

Mr. BOUCHER. How generous. Thank you, Mr. Chairman.

Mr. HALL. Up to 8 or 10 minutes.

Mr. BOUCHER. There is always a limit in life. Ms. Showalter, let me congratulate you and NARUC for taking the position you have with regard to Federal authority concerning transmission siting. I agree with you. I think the record is devoid of any real example of instances where the States have unreasonably delayed or inappropriately refused to issue the required permits for the siting of needed transmission. So transferring this level of authority to the FERC is, in my view, not justified, and I commend you for that. I suppose the provision in the conference agreement that we achieved last year, and the draft legislation now circulating that is the most universally applauded, is the provision that would make the transmission reliability standards both mandatory and enforceable.

Unlike last year's conference agreement, however, the draft legislation now circulating would impose a spending cap of $500 million over a 10 year period—I guess you can translate that as $50 million per year—on the ability of the agency that would enforce these standards to carry out that work. Are you aware of that, and if you are, are you concerned about it? Is it something we should be concerned about?

Ms. SHOWALTER. I have to say I haven't thought about that. I can answer just in more general terms, which is in my view, there is not, and should not be, an abstract approach to transmission. It is a real thing that may or may not be needed, and needs to be reviewed in conjunction with the partial substitutes, which are generation and demand response. And when you look at this issue, nationwide, in the abstract, it may obscure individual decisions that individual utilities and States need to make, and should make, and they should be made on a needs basis. So I think that it is difficult to generalize.

Mr. BOUCHER. Let me ask you if you would do this for us. Go back and take a look at the effect of this budget cap.

Ms. SHOWALTER. Okay.

Mr. BOUCHER. You might ask others at NARUC, maybe your professional staff, to focus on it, and if you have any concerns about it, if you think that this should raise a red flag for us, send us a letter. Let us know. Would you?

Ms. SHOWALTER. We will do that. Thank you.

Mr. BOUCHER. That is great. Mr. Caruso, let me talk a bit with you about projections for natural gas usage going forward. About 2 years ago, you testified, or your agency did, I am not sure it was in your person, individually. But your agency presented information to us, indicating that over the course of the next 20 years, approximately 80 percent of the new electricity generating plants would be fueled with natural gas. In the intervening 2 year period, the price of natural gas has escalated even further, there is a projection, I suppose, that it is going to, that price is going to remain where it is, or perhaps even increase over time. And in view of that, those changes, have your projections changed? Do you think that we are still looking at 80 percent of the new plants over the next 2 decades being fueled with gas, or is that some lesser number?

Mr. CARUSO. We have actually revised that number down a bit in the last 2 years, but it is still substantial. I don't have the precise number which I can provide, but it is about two thirds of the new electric power generation that will be gas-fired under our latest outlook; about 65 percent.

[The following was received for the record:]

From 2004 through 2005, approximately 281 gigawatts of new electricity generating capacity are projected to be added in the reference case of the 2005 *Annual Energy Outlook*. Approximately 178 gigawatts (63 percent) of the total added are natural gas-fired.

However, it is important to note that a large number of the new natural gas plants are not expected to operate intensively and many will be replacing older, less efficient natural gas and oil plants. Nearly half (81 gigawatts) of the new natural gas fired plants added are expected to be simple combustion turbines or small distributed generators. These types of facilities are generally only used during the highest demand periods and, as a result, their natural gas use is limited. Furthermore, nearly 40 gigawatts of newer, more efficient, natural gas-fired power plants will replace older less efficient natural gas-fired and oil-fired plants, reducing the increase in natural gas that might otherwise be expected.

Mr. CARUSO. And the second largest, of course, would be coal. And then, there would be about 10 percent renewable, to make up the complete 100 percent of the new generation capacity. One of the interesting things we discovered in the last year, when we took a hard look at the combined cycle gas turbine technology and had experts come in and examine what we have in our model with respect to the economics of combined cycle gas, they said, oh, you are much too pessimistic. We are doing better than that in the industry. So even with a higher gas price in the 2005 outlook than we had in the 2004 outlook, we actually bumped up the gas going into electric power generation.

Mr. BOUCHER. Because of the efficiency produced——

Mr. CARUSO. Yes.

Mr. BOUCHER. [continuing] by combined cycle.

Mr. CARUSO. Improved technological efficiency using gas, even at a higher price, more efficiently than other fuels and technologies of choice.

Mr. BOUCHER. Anecdotally, I would just observe to you that in the conversations I have been having with electric utilities lately, there is a dramatically renewed interest in coal and in the potential for coal to fuel many of the new electricity generating plants that will be constructed. And in view of what I am hearing just anecdotally in these conversations, I was a little bit surprised to see your projection that from the year 2003 until the year 2025, the amount of electricity generated by coal would decrease from 51 percent in 2003 to 50 percent in 2025. How confident are you in that projection?

Mr. CARUSO. Reasonably confident. Even though the percentage declines very slightly, 1 percent, as you point out, the amount of coal utilized grows substantially. In fact, after 2015, when gas prices are rising as projected in this outlook, coal actually does quite well in terms of the period 2015 to 2025—there is a substantial amount of new coal generation capacity added.

Mr. BOUCHER. Okay.

Mr. CARUSO. One of the issues is that there is so much gas in the pipeline, combined cycle projects, and I am sure the next panel will get more precise about this, certainly up to 2010 and even a little beyond that there is not going to be much non-gas generating capacity added, but it does get much more competitive, as I say, after 2015.

Mr. BOUCHER. After that.

Mr. CARUSO. Yes.

Mr. BOUCHER. And what about natural gas prices? How do you see those performing——

Mr. CARUSO. Well——

Mr. BOUCHER. [continuing] over the next 20 years?

Mr. CARUSO. That is a critical issue. As you know, it is about $6 per thousand cubic feet today on the spot market. Our model indicates that if we get the amount of liquefied natural gas that we project in this outlook, it comes in at a very reasonable cost, in fact about $3.60 or so into the Middle Atlantic States. We think that it would put some downward pressure on the price of natural gas. In this outlook, we have it going below $4 an mcf by 2010.

Mr. BOUCHER. And how many terminals have to be built to achieve your projection?

Mr. CARUSO. It depends on, of course, the individual sizes of the terminals, but we expect it will be in the neighborhood of about 10 needed to be built to meet that 6.4 trillion cubic feet of LNG that we have projected by 2025.

Mr. BOUCHER. And given the challenges of building even one terminal, how realistic do you think it is that we will be able to build 10?

Mr. CARUSO. I think it will be a challenge, and we do see some progress. There are about 5 of those projects that have now received some level of approval at FERC, or the Coast Guard, but there are certainly challenges——

Mr. BOUCHER. The big challenge is at the——

Mr. CARUSO. [continuing] at the State and local——

Mr. BOUCHER. [continuing] State and local level.

Mr. CARUSO. There are a number going forward offshore-Bahamas, that will serve Florida; Baja, California, that will serve California, and so there are some positive signs, also, the Cheniere project in Freeport, and there is a Sempra project in Louisiana, as——

Mr. BOUCHER. One additional question. We have, in the draft legislation, a series of tax credits that would be awarded to electric utilities that use a new generation of clean coal technology, and we have some very promising technology: integrated gasification, combined cycle, results in 0 SO_2 emissions, 0 mercury emissions, the ability to capture CO_2 and sequester it, potentially solving the global warming concerns that we have, insofar as fossil fuel generation contributes to it, and also, getting a major reduction in NO_X, about a 50 percent NO_X reduction. This is really a good technology, and it would enable coal to be burned at least as cleanly as natural gas, maybe even more cleanly. American Electric Power has decided to adopt this technology and a build a full scale commercial plant. It is the first utility in the country to publicly commit to do that. And I suspect others may, as well.

We think that the movement toward that technology and other promising clean coal technologies can be accelerated rather substantially, if the tax credits and—investment tax credits and production tax credits—contained in the bill, in fact, become law. Have you looked at the effect those tax credits would have on the projections you have for the comparison between gas and coal use, and new electricity generation?

Mr. CARUSO. We actually did an analysis last year of the Conference Energy Bill, so that if that those tax credit provisions were in that Conference Energy Bill, we did do that analysis. I would certainly be happy to make that available to you.

[The following was received for the record:]

In response to a request received from Senator John Sununu on February 2, 2004, EIA performed an assessment of the Conference Energy Bill (CEB) of 2003. The full analysis is available at the following link: http://www.eia.doe.gov/oiaf/servicerpt/pceb/pdf/sroiaf(2004)02.pdf

This report summarizes the CEB provisions that can be modeled using the National Energy Modeling System (NEMS) and that have the potential to affect energy consumption, supply, and prices. The impacts are estimated by comparing the projections based on CEB provisions with the *Annual Energy Outlook 2004* (AEO2004) reference case.

With respect to electric generating technologies, the CEB contained provisions to stimulate the development of clean coal technologies, advanced nuclear plants and renewable generators. In our analysis, by 2005 the provisions of the CEB resulted in the addition of 22 gigawatts of advanced coal capacity, and 2 gigawatts of non-hydroelectric renewable capacity. The impact on non-hydroelectric renewable capacity is actually larger in the near term because the renewable production tax credit (PTC) is extended for two years and then sunsets. The CEB was found to stimulate 7 gigawatts of additional non-hydroelectric renewable capacity by 2010; however, by 2025, the differences between the reference and CEB cases are small.

Overall, EIA found that the impacts on electricity sector coal and natural gas use to be small. The 22 gigawatts of new advanced clean coal capacity generally displaced conventional coal capacity. These advanced coal plants are more efficient than conventional coal plants so they can generate the same amount of electricity while consuming less coal. The 6 gigawatts of new advanced nuclear plants also generally displaced coal capacity that was expected in the reference case. Relative to the reference case, the net effect of these two changes was 2 percent lower coal use in the power sector in 2010 and 3 percent lower coal use in 2025. Natural gas use in the power sector was projected to be nearly 4 percent lower in 2010, primarily because of the increased renewable generation. However, by 2025, the difference was less than 1 percent.

Mr. BOUCHER. I would appreciate your sharing with me any analysis you have done, and if you have not done one on that specific issue, if you would do one and share the information with us, that would be very helpful.

Mr. CARUSO. I would be pleased to do that, sir.

Mr. BOUCHER. Thank you very much. Thank you, Mr. Chairman. I appreciate your patience.

Mr. HALL. The Chair recognizes Mr. Shimkus for 5 min

Mr. SHIMKUS. I thank you, Mr. Chairman. I always enjoy following my colleague, Mr. Boucher, where in some parts of the country, coal is still king, and a great resource, and I think his highlighting on the research and development and the clean coal tax credits will really help revive and establish a benefit for all the country. But if we site new generating facilities around mine mouth plants, using the new clean coal technologies, and we can't get that to the distribution grid, then it is all for naught.

So before I go to our State regulator, I have a couple questions for you, Mr. Caruso. If—when the public finds out that we are excited about an LNG facility in the Bahamas, that is going to pipe natural gas into the continental United States, thus losing the jobs, thus losing the tax base, I think they are going to be very disappointed in us. And you mentioned it. I have been following this project, and this is not the only one, that is going to be popping up all over this country, and there is a jobs issue here, and there is an efficiency issue here that we need to keep before the public, because I find that unacceptable. So thank you for mentioning that.

The—how many petroleum based refineries have we built in the past 20 years?

Mr. CARUSO. Zero.

Mr. SHIMKUS. How many——

Mr. CARUSO. Grassroots refineries.

Mr. SHIMKUS. Yeah. How many ethanol refineries that have been built, do you know a number for that?

Mr. CARUSO. I don't have that number, but I would be happy to——

[The following was supplied for the record:]

Although EIA does not collect data on ethanol refineries, some information is available from the Renewable Fuels Association (RFA). According to RFA, current ethanol production capacity (as of February 2005) is 3739 million gallons per year (mmgy), with another 689 mmgy of capacity under construction. In congressional testimony, RFA has stated that during the 25 years preceding 2004, 76 ethanol refineries were built, In 1980, the industry had capacity of about 175 mmgy.

Mr. SHIMKUS. I think it is in the mid-20's, and——

Mr. CARUSO. Yes.

Mr. SHIMKUS. [continuing] projected to grow. Soy-based processing fuel plants, still numerous on the board. Of course, I am from the breadbasket in the Midwest, and we applaud that. But we still need to accept the basic premise that we need to build new refineries in this country. Anything that we did in the last energy bill, or I knew we had—well, actually, we had followup legislation that Chairman Barton, we voted on the floor to help expedite the siting of refineries—wasn't in the conference report. We added it to the conference report.

Mr. CARUSO. But no new refineries.

Mr. SHIMKUS. Would you all think that if we are going to open up the H.R. 6 and have a debate, the refinery portion might be a very helpful provision in addressing, you know, fuel needs in this country?

Mr. CARUSO. Well, our forecast shows that we are going to need 8 million barrels a day more of either refinery capacity in this country or abroad. So one way or the other, right. We have had some reasonable refinery capacity growth at existing sites. We have probably added somewhere in the neighborhood of 150,000 barrels a day——

Mr. SHIMKUS. Right.

Mr. CARUSO. [continuing] over the last——

Mr. SHIMKUS. Yeah, let me tell another story. I have said this—on the hearing. We have got great excitement, people coming in to me. They want to pipe down heavy crude from the eastern slope of the Canadian Rockies all the way down to the Gulf to find a refinery that can crack the heavy crude instead of siting a refinery in closer proximity. It is just ridiculous, until we move on this. So obviously, that is what I will be looking at also, is some of the major issues.

Ms. Showalter, I would invite you to come to Chicago, Illinois, where we have a large transmission line, which we have been unable to, for I am going to say generations, to get sited into Wisconsin. There are examples of this all over the country. And all we are asking for in this transmission debate, is the same provisions we have on natural gas. We want to give the public utility commissioners the opportunity to reconcile these differences, but I think there is no debate that this is an interstate commerce issue, and that failure to act by the State commissioners demands that we have a Federal step-in, at least a date certain, to push decisions on this. And I will be very shocked if, in a new energy bill, we don't have the same provisions we have in the current bill.

You took exception with the economic dispatch language, which was my language, so—and I would like to know why, and my colleague yesterday, Mr. Green from Texas, good friend, talked about efficient dispatch. So I think this is an issue that continues, we will probably have even more interest in, and if you would, could you explain the problems with the economic dispatch language?

Ms. SHOWALTER. I want to be clear, because I am not certain we are talking about the same thing. The first point was that I don't think that economic rules should be injected to the reliability provisions. In other words, the physical reliability and the physical standards for operation of the physical system, I think, do not depend on what form of economic regulation you impose.

On economic dispatch itself, I have to say, you know, I don't believe NARUC has a position on economic dispatch, but I will say what I think the considerations would be. If you require economic dispatch, it amounts to saying, if it is cheaper that day to operate the system using one plant versus another, that is how it should be done. That is an oversimplification——

Mr. SHIMKUS. Well, I think, as the author, I think it is—it was more the intent that if it is more cost-effective for the local system, to—and then to block an economic model that competes, there should be analysis of that cost.

Ms. SHOWALTER. Okay. And so the question then is what do you mean by cost-effective, and if you are looking at, say, spot-market prices that day, or running the system that day, that is a very short-term approach to cost-effectiveness. The way that big plants get built, if you are asking Wall Street to invest in a $500 milli
plant that is going to last 20 or 30 years, the inve   r is
say, well, how am I going to get my money   y
plus a profit, and part of that depends on that sy

will give you an example of—Puget Power has a facility, and it isn't used all that often, so one of the questions would be should they just use it when they can buy gas that day, that is economic. But forcing them, or going toward a system whereby they just look at the gas price that day may, in fact, cause them not to buy gas in the most economic way possible, which would be diversify over time, some short-term, some medium-term, some long-term. But once they have embarked on those contracts, then they need to pay that amount of money. So what I am trying to pose here is the problem of looking at what is economic on a given day or time, and how that affects the longer-term economic use of the system.

Mr. SHIMKUS. See, and that is the difference between the two worlds, a regulated world versus the competitive world. The competitive marketplace does this every day for every industry and every major manufacturing and investment. They have to take that risk.

Ms. SHOWALTER. Right.

Mr. SHIMKUS. They got to look out and say, you know, I am not sure. What if they—what if we have a new technology. So I think we will agree to disagree. I just think that that is why we want—those of us who believe in a competitive market believe that the competitive market gives the best services at the lowest price, and it demands efficiency and reliability, and it pushes the envelope to the betterment of all, versus the regulated market that is going to try to baby the system. So with that, I am a little biased. Mr. Chairman, I will yield back.

Mr. HALL. The Chair recognizes Mr. Murphy from Pennsylvania for 5 minutes.

Mr. MURPHY. Thank you, Mr. Chairman, and I would like to thank the panel. I was reading some of your testimony. I am sorry I couldn't be here for all of it, as I was off in another meeting, but I wanted to follow up on some of the issues involving natural gas, Mr. Caruso, because it is an issue in a coal and gas State like Pennsylvania, where we consume a lot and have a lot, it is a concern to me to make sure we are finding ways—and actually, this is probably open to the whole panel—of how we can really expand production and exploration of this.

I want to ask in a general way with regard to how we are doing this, by the U.S. natural gas supplies, and bringing in or establishing more—bring in foreign sources on this. First of all, are we establishing, are we strengthening foreign resources on this at the expense of being behind in strengthening our own research, development, exploration here, the way things are going with expanding imports?

Mr. CARUSO. Well, certainly, the upward pressure on price has provided a lot of opportunity for private sector R&D but the main problem is really just the decline rate in our existing conventional sources of natural gas, particularly in those States surrounding the Gulf of Mexico. We see most of the new growth coming from unconventional gas, in the Rocky Mountain region in particular, tight sands, oil—gas shale and coal bed methane, which is also in other regions, and the coming on stream of the Alaska natural gas transmission system in 2016 in our outlook. Even with that substantial growth, we will need more than 6 trillion cubic feet of LNG to meet the gap between what we think demand will be in 2025, and what we think domestic supply will be.

Mr. MURPHY. And then, that all points toward rising prices in natural gas.

Mr. CARUSO. We think that if there is a global market for gas developing, which means LNG serving not only the Pacific, which is the situation today, but development of an Atlantic Basin market, the price for natural gas actually can come down, because Middle Eastern gas from Qatar could be delivered to the Middle Atlantic States at about $3.60 an mcf. Today, we have Trinidad and Tobago gas delivered to Lake Charles, Louisiana, at about $2.50.

Mr. MURPHY. And what level does it need to be to spur private sector America to explore more here?

Mr. CARUSO. Well, you know, I think at $6 an mcf, there is enormous incentive, and our drilling rates and rigs in operation are as high a number today as they have ever been. The problem is we are drilling more and finding less, and the decline rates are steep.

Mr. MURPHY. So we will continue to be in this bind until—we actually have it high enough to drill here and explore here, but at those levels, our chemical industry, for example, can't compete worldwide, but we continue to bring it in. It——

Mr. CARUSO. The chemical industry——

Mr. MURPHY. [continuing] affects our domestic production.

Mr. CARUSO. The chemical industry has been one of the most hard hit. Obviously, there is also the issue of access to areas that are under moratoria. That is another key factor here.

Mr. MURPHY. Well, given this, and mentioned some of your analysis, then, of what is anticipated as we move toward the clean coal technology, which I think is critically important. I think I have heard the ranking member, at times refer to that we are standing on the answer, and it is coal. Will—is there hope that expansion of clean coal resources and clean—and scrubbing our current coal plants to make them more efficient and cleaner, will also have that impact upon lowering the demand for natural gas, and then, of course, the price as well?

Mr. CARUSO. Yes. In our model, the main difference, when you look at different technologies, Congressman Boucher just mentioned the IGCC coal plants. Indeed, if the technology improves, or if there are investment tax credits, as were proposed—I just found the reference here—an additional 22 gigawatts of IGCC would be added to our outlook if the investment tax credit that was proposed in last year's bill were to be made law.

Mr. MURPHY. Okay.

Mr. CARUSO. So there is definitely competitiveness on the coal side, if technology improves, and the economics move in that direction, or other laws are enacted that would change the current situation.

Mr. MURPHY. I have one—I don't know much time I have left. My—oh, there it is. Well, since I have 10 seconds left, I would like to thank you very much, and I will yield back t r -
ance of my time.

Mr. HALL. The ranking member has one
ask one of the members.

Mr. BOUCHER. Mr. Inslee, your time is coming, I can assure you. Let me just ask one followup question. Mr. Caruso, thank you for identifying the part of your analysis that relates to the effect of the tax credits we are proposing. I note you indicate that if the credits are approved, that would add 22 gigawatts of coal-fired capacity. Over what period of time is that, and does your analysis further suggest the adjustment in the balance between gas and coal as a percent each would occupy of the total for the new generation that these credits would create?

Mr. CARUSO. Yes. That reference that I mentioned, from our analysis of the conference energy bill, was for the year 2025. So if the ITC, investment tax credit, were approved, and this was assuming, of course, in 2005, by 2025 there would be 22 gigawatts of IGCC capacity added, and all other things being equal, it would shift that, most likely, away from natural gas.

Mr. BOUCHER. Do you know the—can you talk about the percentage that gas would occupy of the total market, as compared to coal, based on these credits being adopted?

Mr. CARUSO. I could, but I don't have that right in front of me. I would certainly be happy to supply that for the record.

EIA's analysis of the impacts of the Conference Energy Bill (CEB) found relatively small impacts on the share of electricity generation market captured by natural gas and coal. For example, in 2010 in the *Annual Energy Outlook 2004* reference case, coal generation accounted for 50.0 percent of total electricity generation while natural gas generation accounted for 20.5 percent. In 2010, in the CEB analysis, coal generation accounted for 49.3 percent of total electricity generation and natural gas accounted for 19.8 percent. By 2025, coal generation was expected to account for 52.3 percent of generation in the reference case and 51.3 percent of generation in the CEB case, while natural gas generation accounted for 22.5 percent of generation in the reference case and 22.6 percent of generation in the CEB case.

Mr. BOUCHER. Would you go back and put that together, and send it to us? That would be very helpful.

Mr. CARUSO. Yes, sir.

Mr. BOUCHER. Thank you. Thank you, Mr. Chairman.

Mr. HALL. Yes, sir. The ranking member and I have agreed to recognize Mr. Inslee, who is not on the subcommittee, but is a very valuable Member of the Congress, and a hard working Member for 5, 6, 7, or 8, 2 of them already gone.

Mr. INSLEE. Mr. Chair, I do appreciate the opportunity to participate. Thank you very much for your courtesy, and I want to welcome Marilyn, who has been an absolute stalwart for the State of Washington, now, we appreciate you spreading your wisdom to the—Washington here. I really appreciate your comment, I was reading your written testimony, about the need to really act as a first responder on monitoring the market conditions and the like. And I want to—I wanted you to expand on that, because we had this really horrendous situation in the State of Washington up and down the West Coast, where Enron and their ilk took out, according to the FERC staffers, a week ago, about $1.5 billion out of the West Coast. That was just Enron, for what they did. And as you know, that went on for some period of time, I think starting in mid, late 2000, we started—we saw these horrendous ramp-ups from 100 to 500 to 1,000 percent increases. We in the State of Washington were just banging on the drum for FERC to do something, letter after letter, meeting after meeting, met with all kinds of folks, including the Vice President, trying to ask for assistance from the Federal Government, really just didn't get any. Just sort of got the go fish type of attitude from the Federal regulator.

And I have never seen a situation in my life where a public agency was—acted with such ineffectiveness and futility, and just refused to act on this horrendous crisis that was obvious. Because I remember having one discussion that—on the day there were brownouts in California, 32 percent of all the generating capacity was turned off in the Western United States. It was obviously someone was gaming the system, and yet, we really didn't FERC to recognize that until last week, when their staffer testified that Enron had illicit profits of about $1.5 billion alone in the West Coast. Of course, now, it is too late to get meaningful refunds, because the money has all been dissipated, and they are bankrupt.

So I guess I would like you to expand, if you can, on what could be done in this bill, either one, to allow or motivate FERC to be more effective, or No. 2, how do we assure that the States can be a watchdog, and guarding our precious bodily resources, when the Federal Government is not? Just if you can expand any ideas in that regard.

Ms. SHOWALTER. Well, I think first, the core responsibility for the wholesale market does lie with FERC, and they have got to do the job, but you are quite right that we in the States are the ones who see problems first, and we need the tools to see it, meaning get records, and be able to engage with the FERC on those issues.

I was thinking about, as these revelations have come out, where we were, where I was when all this was occurring, and in late 2000 and early 2001, we were actually having hearings on Saturday until midnight, because a big—some large, industrial customers were having to pay very, very high rates—10 to 100 times normal—because they had agreed to pay market rates. At the time, of course, we didn't really know what was going on, but we were the first, we being the State regulators, were the first ones to hear, and try to get involved in that information. I think that had we been able to control and get more involved in what the issue was, we would have resolved it more quickly. In fact, we as an agency, had requested price caps in 2000 which we finally got much later.

So the issue here, to me, is not whether the States should take over monitoring or running the wholesale market. They don't. But they do have a very important role to play in having their antennae up, and being alert to that information, and being able to do something with it.

Mr. INSLEE. Thank you. I have just a very brief time, Mr. Caruso. I want to ask you about the commitment to deal with global warming, and I ask a question, and this may be in a different pay grade, but if you can take a stab it. I really sense a schizophrenic approach from the administration, and to some smaller degree, from the Department about global warming. On one hand, I sense a statement that, well, we just don't know enough about global warming to really decide to do something significant about it, so we really should just be in the research mode. But when that po ti is criticized, then, the administration will turn around and well, we have—we actually are doing something about it.

Which horse is really the Department on? Is it on the—is it recognizing global warming as a problem we have to deal with, and that the science is there to base policy decisions on it? Or is it in the mode saying no, we should just bide our time and do more research. Which side are you on in that regard?

Mr. CARUSO. Well, as you know, EIA is not a policymaking organization, and Dave Garman is more appropriate to answer this, but I will take a stab at it. I think the Clear Skies Initiative is one thing that the President has announced, and is doing something. At the same time, technology, R&D is going forward. So I think both things are happening. That is my sort of policy neutral attempt to answer that question.

Mr. INSLEE. Well, thanks for taking a stab, and thank you, Mr. Chair.

Mr. HALL. We thank you. Mr. Pitts, do you have any questions you want to ask? If so, we recognize you for 5 minutes, or as much as you want to use.

Mr. PITTS. I will pass until I can——

Mr. HALL. All right, sir.

Mr. PITTS. [continuing] papers.

Mr. HALL. We thank this panel, and thank you for the time it took to get here, the time to prepare, the time to deliver your testimony, and the time to get back to wherever you are going. We really appreciate you. You have been of great help and great assistance. Vic, thank you, and come by and see me when you can.

Panel 2 is dismissed, and panel 3 is in the process of settling in now. We are kind of under the gun for time here, because we only have this room for another few minutes, so let me get under way by saying a word or so about each one of you.

Tom Kuhn is a major player in the energy industry. He is President of Edison Electric Institute. Prior to joining EEI, he was President of the American Nuclear Energy Council, which subsequently merged with the Nuclear Energy Institute, and NEI represents virtually all of the companies in the commercial nuclear power industry, so he is a real player here.

Lynne Church is EPSA President, responsible for overall management of the Association, and prior to joining EPSA, a partner in a Washington, DC energy law firm, and served in executive positions with Baltimore Gas and Electric Company, including treasurer and assistant secretary, chief auditor, and handled almost everything there. Earlier in her career she served as associate general counsel for rulemaking and policy coordination at the Federal Energy Regulatory Commission, and Director of the Office of Natural Gas. Quite a background and history.

Alan Richardson, President and Chief Executive Officer of the American Public Power Association, APPA, and they are in town this week in numbers. They are the service organization for the Nation's more than 2,000 community-owned electric utilities, that serve over 45 million Americans. That covers quite an area. They serve large cities and also serve the small cities.

Glenn English, very proud to see Glenn here. He is always welcome here. He has varied background. He has worked from the ground up, or maybe you would say from the ground down in the oil and gas business, and leasing realtor. He was the Executive Director of the Oklahoma State Democratic Party when I was a Democrat, from 1969 to 1973, and elected as a Democrat to the 94th and to nine succeeding Congresses. He, with his associate, Monty Wynn, are very active in energy solutions. They are welcome in every office on the Hill. Glenn English doesn't have any people that have anything other than admiration for him. He was known all the time he was in Congress, and I think he might have put this in his, some of his campaign literature, he was a workhorse and not a show horse. But we need both here.

Marty Kanner, thank you, is founder and President of Kanner & Associates. Prior to forming that organization, served on the Government Relations Staff of the American Public Power Association, including 3 years as Director of Government Relations, and is no stranger to the Hill. He has high marks with consumers, and led a successful effort to amend the Federal Power Act to provide wholesale electric customers with refunds during rate reduction proceedings. He also worked with Congressman Jim Bates, and Congressman Jim McNulty here, in the past.

Steve Nadel, Executive Director of the American Council for an Energy-Efficient Economy. They work on programs and policies to advance energy-efficient technologies and services, and also with the Energy Efficiency Program for New England Electric. He coordinated energy programs for the Massachusetts Audubon Society, and worked on a variety of energy conservation programs.

Ed Hansen has an usual background. He was appointed to the position of General Manager of Snohomish County PUD on July 2002. But he serves a great purpose for this committee and for this Congress, because of his local government abilities. He was mayor of Everett, Washington, and he served under U.S. Senator Henry "Scoop" Jackson, one of the real leaders of legislation here, and from the State of Washington. He practiced law in the Everett area and brings a special local government ability to this, and that is something that we really need, and I thank you for that.

Kateri Callahan has served for 11 years as President of the Electric Drive Transportation Association. She worked for the enactment of the Significant Federal Tax, and other incentives for electric drive transportation technology. She conducted a host of internationally acclaimed conferences, and is known for that. Kateri also worked on cooperative projects with the Departments of Energy and Transportation, the adoption of policies to support energy drive transportation technologies by 39 States. She also served 4 years on the staff of a U.S. Senator and 2 years as Director of Federal and Government Relations for a nonprofit advocating for reform of U.S. immigration laws. So she has been around the town here for quite a while, and thank you for your service here.

Mark Cooper, Director of Research for Consumer Federation of America, holds a Ph.D. from Yale and is a former Yale University and Fulbright fellow. Mr. Cooper has written several books and provided expert testimony in over 250 cases for public interest clients, including Attorneys General, people's councils, and things like that.

We have an unusual panel, and we certainly thank all of you for your patience. You have waited, and you have listened, and you have heard the opening statements. You have heard questions and answers, and you ought to really be in a position to get this thing underway, and get the testimony into the record, and built into legislation for the future.

Tom, we will start out with you, sir.

STATEMENTS OF THOMAS R. KUHN, PRESIDENT, EDISON ELECTRIC INSTITUTE; LYNNE H. CHURCH, PRESIDENT, ELECTRIC POWER SUPPLY ASSOCIATION; ALAN H. RICHARDSON, PRESIDENT AND CHIEF EXECUTIVE OFFICER, AMERICAN PUBLIC POWER ASSOCIATION; ED HANSEN, GENERAL MANAGER, SNOHOMISH COUNTY PUBLIC UTILITY DISTRICT; GLENN ENGLISH, CHIEF EXECUTIVE OFFICER, NATIONAL RURAL ELECTRIC COOPERATIVE ASSOCIATION; KATERI CALLAHAN, PRESIDENT, ALLIANCE TO SAVE ENERGY; MARK N. COOPER, RESEARCH DIRECTOR, CONSUMER FEDERATION OF AMERICA; AND STEVEN NADEL, EXECUTIVE DIRECTOR, AMERICAN COUNCIL FOR AN ENERGY-EFFICIENT ECONOMY

Mr. KUHN. Mr. Chairman, thank you very much, and members of the subcommittee. My name is Tom Kuhn. I am President of the Edison Electric Institute, which is the association of shareholder-owned electric utilities and industry affiliates and associates worldwide. I very much appreciate the opportunity to testify today on the comprehensive energy bill. Mr. Chairman, you and the committee deserve a great deal of credit for your years of effort in trying to produce legislation to address this Nation's long-term energy needs.

EEI supported the energy bill conference report in the 108th Congress, which was the basis for the draft bill. We urge the House to approve a bill as soon as possible this year. I got into my car this morning, and turned on the radio and the news, and the first story I heard was gasoline prices again above $2 a gallon, and natural gas prices impacting people's home heating bills. While we continue to talk about energy issues, high energy prices, volatility, and disruptions provide a heavy burden on American consumers and businesses.

The fuel diversity should be a cornerstone of our national energy policy as an important hedge against supply disruptions and price volatility. The discussion draft promotes the full range of electricity generation options, including coal, nuclear, natural gas, hydro, and renewables. Reliable electric service and reasonable electricity markets also depend on strong transmission systems to move power instantaneously to where it is needed. We support the discussion draft's provisions to ensure reliability, and to eliminate disincentives to investment in critical transmission infrastructure, including mandatory and enforceable reliability standards, granting FERC backstop siting authority, improving coordination of the Federal permitting process, removing FERC transmission rate policies, reforming FERC transmission rate policies, and repeal of PUHCA.

The discussion draft includes other important electricity reforms that we also support, including PURPA reform, FERC light provisions, FERC refund authority, FERC merger authority, and native load protection. The discussion draft includes many valuable provisions to promote energy efficiency and wise energy use, particularly improvements in Federal agency energy efficiency programs.

While not within this committee's jurisdiction, EEI also supports inclusion of several important tax provisions in an energy bill that will help increase investment in and strengthen our energy infrastructure, and promote the development of new technologies, including renewables.

We do have concerns with a couple of budget-related limitations that appear in the reliability and energy efficiency sections of the discussion draft, which were not included in last year's conference report. We look forward to working with you and your staff to resolve those issues. And in conclusion, we commend you for getting the ball rolling again on energy legislation. The need for a bill is greater now than ever, and we certainly look forward to working with the committee on this important issue.

[The prepared statement of Thomas R. Kuhn follows:]

PREPARED STATEMENT OF THOMAS R. KUHN ON BEHALF OF THE EDISON ELECTRIC INSTITUTE

Mr. Chairman and Members of the Subcommittee: My name is Tom Kuhn, and I am President of the Edison Electric Institute (EEI). EEI is the association of U.S. shareholder-owned electric utilities and industry affiliates and associates worldwide. We appreciate the opportunity to testify on energy policy legislation. The House Energy and Commerce Committee deserves a great deal of credit for its years of effort to produce legislation to address this nation's long-term energy needs.

EEI supported the energy bill conference report approved by the House of Representatives in the 108th Congress, and we urge the House to approve a similar bill again as soon as possible this year.

We recognize that every stakeholder would probably change something in last year's H.R. 6 conference report, which we understand will serve as the basis for the House bill this year. However, the conference report is the product of years of hearings, debate and negotiations. While we continue to talk about energy issues, high energy prices continue to be a heavy burden on American consumers and businesses. We need an energy bill now more than ever. The most important thing now is for Congress to move forward and finish the job as soon as possible.

PROMOTE FUEL DIVERSITY

Fuel diversity should be a cornerstone of our national energy policy. Having a broad array of fuel resource options available—including coal, nuclear, natural gas, hydro, and renewables—is an important hedge against supply disruptions and price volatility, thus benefiting consumers, the economy and the environment. It is critically important to our industry to have all of our fuel resources as viable, affordable options. The H.R. 6 conference report will promote the full range of energy supply options, so it should be supported.

Coal is a fuel source for more than 50 percent of the electricity generated in the United States. It is abundant, affordable, and increasingly clean, with significant improvements in pre- and post-combustion emission reduction technology. Clean coal technology development and maintaining coal's ability to compete on costs are key drivers to our future ability to use coal, and the bill includes important provisions to help achieve these goals.

Nuclear energy provides 20 percent of this nation's electricity and offers the environmental advantage of being emission free. The conference report's provisions on Price-Anderson reauthorization and advanced reactor development are among those that will help maintain the viability of the nuclear power option for decades to come.

The electric utility industry shares the concerns that many have about the cost and availability of natural gas. Roughly 18 percent of total current electricity generation is gas-fired, and in the past decade 88 percent of new plants have been gas-fired. Gas offers several advantages for generation, including lower emissions than other fossil fuels, and lower capital costs and regulatory barriers for plant siting and construction. The H.R. 6 conference report included several important incentives for increased domestic gas exploration and production, and we understand this year's bill will be updated with additional measures to promote adequate supply.

Renewables, where available, can also play an important role in fuel diversity. Their most attractive feature is their obvious environmental benefits. While capital costs are currently high, electricity generation from renewables typically depends on "fuels" that tend to be low-cost and abundant in certain regions. Generation from non-hydro renewables in 2002 was 2.2 percent, and it is expected to increase to 3.7 percent by 2025. The conference report includes several incentives for the increased development and use of clean and renewable energy.

In particular I want to focus on the hydro licensing reform provisions in the conference report. Hydro provides roughly 9 percent of our electric generation, but we are concerned about the federal relicensing process, a difficult system that often results in generating capacity reductions and loss of flexibility to operate hydro facilities for electric reliability purposes.

The conference report's provisions will provide a process for achieving a federal land agency's environmental protection goals while at the same time maintaining cost-competitive power production from existing hydropower facilities. Specifically, these provisions would allow an applicant for a hydro license to propose an alternative to the mandatory condition imposed by a resource agency if that alternative would cost less or improve the operational efficiency of the project. Among other things, it would also require the resource agencies to give "equal" consideration to specified factors, such as energy impacts, when developing mandatory conditions and allow an applicant to receive a trial-type hearing on the record to resolve disputed issues of material fact.

ENSURE RELIABILITY AND ENCOURAGE TRANSMISSION INVESTMENT

Reliable electric service and regional electricity markets depend on strong transmission systems to move power instantaneously to where it is needed.

While investment in transmission systems has increased recently, with billions of dollars being spent annually, the bulk of the new transmission being built is to help serve local load and connect new generation to the grid. The level of investment in the long-distance, high-voltage wires has not kept pace with the growing demands being imposed on the system.

For a number of years until 1999, investments by shareholder-owned electric utilities in transmission facilities were steadily declining. This could be attributed to a number of factors, including regulatory and financial uncertainties, as well as difficulties in permitting new transmission lines. Since 1999, however, investment in transmission facilities began increasing by about 12 percent annually.

In 2003, total investment was about $4 billion. Much of the investment growth has targeted local reliability issues and is designed to serve growing population centers around the nation by connecting new power plants to burgeoning electricity demand. Significantly, however, the number of circuit miles of high-voltage and extra-high-voltage transmission lines (188kV and above) owned or operated by shareholder-owned utilities has grown by only 2.5 percent annually since 1999. These are the so-called "trunkline" facilities that move electricity around and between regions of the country.

According to the Energy Information Administration (EIA), consumer demand for electricity is going to increase by roughly 50 percent over the next two decades. To meet this increase in demand, and to assure system reliability and help accommodate wholesale electricity markets, capital investments in upgrades and new transmission lines—especially high-voltage, long-distance lines—must increase from the current level of roughly $4 billion annually to about $5 billion.

A number of critical factors actually discourage investment in transmission, including:

- Local opposition to siting new facilities,
- Inability to recover planning and related costs if facilities are delayed or ultimately rejected by siting authorities,
- State retail rate caps that may prevent utilities from recovering their new investments in transmission,
- Uncertainty over transmission ownership and control policies, and
- Uncertainty as to whether beneficiaries will pay for new transmission.

The conference report provides significant help in removing these disincentives to help strengthen the transmission infrastructure and enhance the benefits of competition for consumers.

Mandatory and Enforceable Reliability Standards

Today's electricity market requires a mandatory reliability system, with enforcement mechanisms. The August 2003 blackout was a dramatic reminder of the need for mandatory reliability rules.

The electric industry and the North American Electric Reliability Council (NERC) are addressing the immediate problems that led to the August 2003 blackout. These include:

- Adding new audit programs;
- Creating guidelines for disclosure of reliability violations;
- Strengthening existing reliability standards and enhancing compliance with reliability rules;
- Improving operator training; and,
- Enhancing vegetation management practices around power lines.

The industry's actions are consistent with the recommendations of the U.S.-Canada Power System Outage Task Force, which studied the blackout and released its final report in April 2004.

All participants in wholesale electricity markets should be subject to mandatory, enforceable reliability standards that are developed or approved by an electric reliability organization, with oversight and enforcement by FERC. Since early 1999, a broad group of stakeholders, including EEI and many of its individual member companies, have supported legislation to achieve this goal. The version of the language that we support is in the H.R. 6 conference report. We strongly urge the inclusion of these provisions in an energy bill.

Grant FERC Backstop Siting Authority

Limited FERC backstop siting authority to help site new transmission lines in interstate congested areas would be a critical aid in developing the more significant transmission infrastructure needed to support regional wholesale electricity markets.

Regional electricity markets require a siting process that has the ability to consider regional and even national needs. FERC has jurisdiction over wholesale electricity markets, but, unlike its authority to site natural gas pipelines, it currently does not have any authority over transmission siting to help ensure that there is sufficient transmission capacity to support those markets.

The H.R. 6 conference report would give FERC very limited backstop transmission siting authority. This authority extends only to helping site transmission lines in "interstate congestion areas" designated by the Department of Energy (DOE) and only if states have been unable to agree or act within a year. We strongly urge its inclusion in the energy bill again this year.

FERC has decades of experience in siting energy facilities. Since 1948, interstate natural gas pipelines have gone to FERC for certificates that grant them eminent domain authority. FERC has permitted hydroelectric facilities since 1920.

Protection of the environment is a top consideration in FERC's processing of natural gas pipeline certificates. Under the National Environmental Policy Act (NEPA), FERC is required to perform a comprehensive environmental analysis of all gas pipeline construction proposals. The conference report's transmission siting provision would require the same environmental protection process for any transmission line construction proposal.

We are confident that with this authority in place, states will find it in their interest to become more effective and efficient in siting needed facilities.

Improve Coordination of the Federal Permitting Process

The unnecessarily complicated, time-consuming and difficult multi-jurisdictional federal permitting process to site energy facilities, including authorizations for siting transmission lines across federal lands, is another major impediment to building new transmission. In some areas of the country, this is the principal impediment.

Problems with the federal permitting process include (1) a severely fragmented process, where each federal agency with potential jurisdiction has its own set of rules, timelines for action and processes for permitting; (2) the tendency by federal agencies to require multiple and duplicative environmental reviews; (3) a failure to coordinate with any state siting process; and (4) a lack of harmonized permit terms from one agency to the next.

The federal transmission permitting process needs to be coordinated, simplified and made to work with any state siting process. The H.R. 6 conference report accomplishes this objective by designating DOE as the lead agency to coordinate and set deadlines for the federal environmental and permitting process. In addition, DOE would be responsible for coordinating the federal process with any state and tribal process. A state where a transmission facility would be located could appeal to DOE when a federal decision deadline has been missed or a federal authorization has been denied. To further facilitate siting, the bill sets deadlines for the designation of transmission corridors across federal lands. We strongly support these provisions.

Reform FERC Transmission Rate Policies

We believe that FERC and the states should utilize innovative transmission pricing incentives, including performance-based rates and higher rates of return, to attract the capital necessary to fund needed investment in transmission. Transmission pricing should (1) allow for cost recovery of fixed and variable costs and a reasonable return on transmission investment; (2) eliminate the pancaking of rates within a regional transmission organization (RTO) region; (3) ensure that cost responsibility follows cost causation; (4) minimize the potential for cost shifting; (5) permit the recovery of all prudently incurred transition costs, and (6) promote efficient siting of new transmission and generation facilities.

We support the FERC pricing and transmission technologies provisions in the H.R. 6 conference report, particularly incentives to expand transmission infrastructure, such as the recovery of costs for planning and pre-certification of transmission facilities and the recovery of costs through construction work in progress for transmission facilities. Likewise, we encourage the states to assure that utilities can recover their costs for investments for transmission under state regulation, with a reasonable rate of return.

According to a December 2001 FERC "Electric Transmission Constraint Study," transmission costs make up only 6 percent of the current average monthly electric bill for retail consumers. On the other hand, generation costs make up 74 percent of the average bill. By reducing transmission congestion, investments in new transmission will allow greater economic dispatch of lower cost generation.

FERC estimates that a $12.6 billion increase in transmission investment would add only 87 cents to an electric customer's average monthly bill. But, since increased transmission investment will help reduce congestion and enable lower cost power to reach consumers more easily, FERC anticipates that the net benefits to overall electric bills could be potentially quite large.

For example, FERC estimates that if the reduced transmission congestion resulted in just a 5 percent savings in generation costs, consumers would see more than a $1.50 decrease in their average monthly bills. If the generation savings from reduced congestion were 10 percent, the average monthly bill for consumers would drop by $4.00. So, a small increase in transmission investment can reap a much more significant benefit in lower generation costs.

In addition to investments to relieve congestion, investments in new technology to help improve the control and use of existing transmission lines are critically important to promote reliability.

Repeal the Public Utility Holding Company Act (PUHCA)

We also believe that repealing PUHCA will help attract significant amounts of new investment capital to the industry. By imposing limitations on investments in the regulated energy industry, PUHCA acts as a substantial impediment to new investment in energy infrastructure, keeping billions of dollars of new capital out of the industry. As a result, we believe that this outdated statute has contributed to the failure of the electricity infrastructure to keep pace with growing electricity demand and the development of regional wholesale markets.

PUHCA imposes outmoded restrictions on the business activities of electric and gas utility holding companies and acts as a barrier to efficient competition. Furthermore, it prevents consumers from reaping the economic and efficiency benefits that can accrue from having access to products and services offered by companies of national scope and scale.

For instance, under PUHCA, a registered holding company must confine its operations to a "single integrated public utility system" (with certain exceptions) located in a "single area or region" of the country. This outdated "physical integration" requirement prevents utility companies from investing capital outside their geographic region, shutting off a valuable potential source of domestic capital investment in needed energy facilities and, ironically, fostering the very kind of concentration in regional energy markets that FERC is trying to reduce.

Even without PUHCA, utility customers and investors are protected. Retail customers are protected fully by state regulation or oversight of retail electric service, and wholesale customers are protected by FERC oversight and regulation. Utility companies have long been, and will continue to be, among the most heavily regulated businesses there are.

The H.R. 6 conference report contains provisions that would repeal PUHCA and transfer consumer protections to FERC and the states. These provisions are similar to PUHCA repeal language that has been included in every major electricity bill considered by Congress over the last decade, and which have been endorsed by every Administration—Republican and Democratic—since 1982. They should be included in the energy bill again this year.

OTHER ELECTRICITY REFORMS

PURPA Reform

The mandatory purchase obligation of the Public Utility Regulatory Policies Act (PURPA) should be reformed. Most significantly, PURPA has subjected consumers to higher electricity prices. Utilities are required to purchase power produced from PURPA qualifying facilities, regardless of whether that power is needed or whether it is more expensive than alternative power supplies. PURPA's mandated, long-term contracts are costing electricity consumers nationally nearly $8 billion a year in higher electricity prices.

PURPA also has failed to achieve its objective to promote the use of renewable energy. Today, approximately 80 percent of all power produced by PURPA facilities is generated using natural gas, coal or oil. Fossil fuels, not renewable energy resources, have been PURPA's primary beneficiaries.

In addition, significant abuses have occurred under PURPA, particularly with respect to cogeneration facilities. There is no requirement under FERC's regulations that a cogeneration facility's thermal output be useful or economic. As a result, what are essentially exempt wholesale generators have been allowed to masquerade as PURPA qualifying facilities in order to have a guaranteed market for their power at government-set prices.

The PURPA reform provisions in the H.R. 6 conference report represent a delicate compromise that is the result of long, difficult negotiations among the major PURPA stakeholders. EEI continues to support these provisions, as it expects other stakeholders to do.

FERC Lite

EEI believes that *all* transmission-owning utilities, no matter what their ownership type, should be subject to the same level of FERC regulation to assure fair, open access for all market participants to the transmission grid. After all, electrons move on the grid according to the laws of physics, without recognizing changes in ownership type. Thus, we believe FERC rules should apply to all users of the grid.

While they are weaker than we would prefer, the "FERC lite" provisions of the H.R. 6 conference report represent a step toward this ultimate policy goal and should be included in any energy bill.

FERC Refund Authority

The California energy crisis clearly demonstrated that retail electricity consumers would be much better protected by making all electricity suppliers, not just shareholder-owned utilities, subject to FERC refund authority. This would ensure that prices charged for wholesale electric power sales, regardless of the seller, must meet FERC's "just and reasonable" standard. EEI supports language in the H.R. 6 conference report authorizing FERC to order refunds from the largest government-owned utilities for short-term sales.

FERC Merger Authority

Mergers among electric utilities and with other energy companies can lower operating costs, diversify the products and services companies are able to offer to consumers, and increase efficiencies. However, electric utility mergers are among the most heavily regulated of all industries, and the federal merger review process is costly, time-consuming and duplicative. EEI supports measures to streamline FERC's current merger review process to eliminate duplicative federal review and bring it more in line with the process used for other industries. The H.R. 6 conference report's provisions clarifying FERC merger authority, expediting the Commission's review process, and directing DOE to study additional ways to eliminate duplication and improve the process are consistent with this goal.

Native Load Protection

Under the Federal Power Act (FPA), FERC is responsible for preventing the exercise of market power in competitive wholesale markets and developing the rules for such markets. However, any FERC analysis of market power in wholesale markets should take into account existing commitments and obligations under state law and state policies relating to service obligations, resource procurement, resource adequacy, fuel supply choices and environmental aspects of generation.

Federal regulators should recognize the retail service obligations of utilities and promote policies consistent with those state-imposed obligations. The native load service obligation provision in the H.R. 6 conference report assures transmitting utilities holding firm transmission rights that giving priority to serving this "native load" does not constitute undue discrimination under the FPA.

ENERGY EFFICIENCY

A balanced national energy policy should also promote the efficient use of energy resources. Using energy wisely is good for the environment, saves money, and helps support energy security. We must continue to seek improvements in energy efficiency, in addition to developing new supplies and infrastructure, in order to achieve our energy and environmental goals.

The H.R. 6 conference report includes many provisions to promote energy efficiency and wise energy use, including higher efficiency standards for a wide range of products that use large amounts of energy, such as commercial refrigerators and freezers, increased LIHEAP funding for low-income households and funding for low-income weatherization programs, and new efficiency performance standards for public buildings. We support these provisions.

Federal Agency Energy Efficiency Programs

In particular, EEI supports language in the H.R. 6 conference report to extend and improve programs under which private sector companies help federal agencies achieve their energy efficiency goals. The federal government is the world's largest single consumer of electricity, and utility energy service contracts and Energy Savings Performance Contracts (ESPCs) are two means by which EEI member companies help federal agencies conserve energy and save taxpayer dollars.

The ESPC program, which received a two-year extension last year after lapsing in 2003, would be permanently reauthorized under the H.R. 6 conference report, finally giving it the long-term stability it needs. However, we are concerned about new limitations, which were not included in the conference report, that we understand might be placed on the program in this year's bill—largely, we understand, because of questionable CBO scoring assumptions. We believe the limitations under discussion would have a chilling effect on the energy services contracting market, which is critical to the federal government's efforts to achieve energy and cost savings. As members of a broad pro-ESPC coalition led by the Alliance to Save Energy, we will work with Chairman Barton and others in Congress to resolve this problem in a way that maintains the viability of this successful program.

ENERGY TAXES

While we appreciate that the tax provisions in the energy bill are under the jurisdiction of another committee, we want to call your attention to critical tax provisions in the H.R. 6 conference report that will help increase investment in, and strengthen, our energy infrastructure.

The U.S. tax code should be amended to provide enhanced accelerated depreciation (from 20 to 15 years) for electric transmission assets, similar to the tax treatment governing other major capital assets. Currently, transmission assets receive less favorable tax treatment than other critical infrastructure and technologies.

The conference agreement also included a provision that would provide rapid amortization (from 20 to 5 years) for pollution control equipment to electric generating units built after 1975. Under current law, this tax treatment is available only for equipment added to generating plants placed in service before 1976. This tax treatment will be a significant economic incentive for utilities to deploy new environmental technologies on electric generating plants. This would result in emission reductions that would provide real environmental benefits that may not be realized without tax relief.

The tax credit for electricity produced from wind, open-loop and closed loop biomass and other renewable resources should be extended. Currently, electricity must be produced at a facility placed in service before January 1, 2006. At a minimum, the credit should be extended to electricity produced at facilities placed in service before January 1, 2008. This tax credit helps make electricity produced from these renewable sources competitive with other forms of electricity, which will be an important part of the nation's long-term energy supply.

Finally, it is necessary to update the tax treatment of nuclear decommissioning laws to reflect a deregulated environment. The conference agreement included needed reforms to provide greater assurance of adequate funding, and allow faster growth in the monies set aside in decommissioning trust funds.

EEI supports inclusion of these tax provisions in the energy bill.

RENEWABLE PORTFOLIO STANDARD

While the H.R. 6 conference report does not include a mandatory nationwide renewable portfolio standard (RPS), we want to reiterate the strong opposition of the majority of our member companies to a federal RPS. A federal mandatory RPS would raise electricity prices for consumers; create inequities among states, electricity generators and electricity suppliers; and threaten electric reliability.

The lack of available renewable energy resources in certain regions, their intermittent nature and the NIMBY problems facing both renewable energy facilities and new transmission lines are significant barriers to increasing significantly the amount of electricity produced from renewable energy resources. These challenges have serious ramifications for electric utilities and their consumers in the context of a federal RPS requirement.

The reality is that many utilities will be forced to purchase renewable energy credits from either the federal government or renewable energy generators to meet an RPS mandate. And, they would still need to generate sufficient power to meet their consumers' demands. In essence, the RPS requirement ends up being a new federal energy tax on traditional energy resources that utilities must pay in addition to the costs of building sufficient reliable and dispatchable generation.

Because renewable energy resources are not uniformly available throughout the country, a federal RPS requirement would create inter-regional "winners and losers" among electricity suppliers and their consumers. Utilities and their consumers in regions lacking in renewable energy resources would end up sending their dollars to renewable energy suppliers in regions with renewable energy resources.

Promoting renewable energy resources, through tax credits and increased funding for research and development, in addition to existing renewable programs in the states, is a better approach to help maintain our nation's diverse fuel mix and reliable electricity supply.

CONCLUSION

Congress needs to finish the job and pass an energy bill as soon as possible to help promote fuel diversity, improve energy efficiency and conservation, provide regulatory certainty in energy markets, and encourage investment in critical energy infrastructure. We urge Congress to adopt an energy bill similar to the H.R. 6 conference report in 2005.

Mr. HALL. Thank you, sir. Ms. Church.

Ms. CHURCH. Good afternoon, Mr. Chairman, Mr. Boucher, and all members of the subcommittee.

Mr. HALL. Good afternoon.

STATEMENT OF LYNNE H. CHURCH

Ms. CHURCH. I am Lynne Church, President of the Electric Power Supply.

We are the trade association representing competitive power suppliers who own and operate approximately 40 percent of the Nation's generation capacity, and we burn a diverse mix of fuels. In 2003, 36 percent of the power produced competitively was coal-fired, 30 percent was from natural gas, and 24 percent was nuclear.

We build and operate power plants without regulatory guarantees or a captive customer base. Our members prosper only if they succeed in meeting the needs of electricity customers.

We appreciate this opportunity to comment on the electricity provisions in the Energy Policy Act of 2005. As our past testimony and correspondence makes clear, we support and will continue to support the passage of this legislation. We do not view the legislation as a panacea for all of the energy issues facing the Nation. However, it includes many legislative changes that are long overdue and will greatly benefit the country. The mandatory reliability language, the transmission siting provisions, the repeal of PUHCA, the Congressional resolution supporting development of better regional markets, and the limited expansion of FERC oversight over the transmission capacity operated by public power are positive aspects.

Let us encourage you to act swiftly. Regulatory uncertainty has a devastating impact on power plant development, which has a long lead time and very high capital costs. While many areas of the country have experienced a relative surplus of available generation capacity, we know this doesn't last. As the economy picks up steam, so does the demand for electricity. Over the next 5 years, these surpluses will shrink, and new capacity will need to be built.

Our companies are recovering well from the ill effects of the past recession. Stock values are up, debt has been reduced, and in large parts of country, broader regional wholesale markets are beginning to take hold and thrive. EPSA companies have invested over $100 billion in new plants, at no risk to their customers. We have built the most efficient, cleanest, and best-run coal, natural gas, and renewable power generation, and we are ready and willing to do more. We also have companies that, for the first time in a generation, are seriously considering new nuclear development. Do not put this critical investment at risk.

On the other side of the ledger, we have consistently expressed our concern that the "SMD delay" language, a Senate addition, and the so-called native load provisions represent poor policy that do little to protect consumers and are more to encourage discriminatory behavior and high societal costs. In addition, we join many other groups in opposing statutory language which prescriptively allocates transmission costs, the so-called participant funding provisions.

As you consider this legislation and further changes, we ask you to keep in mind three basic principles.

First, electricity is a fundamental driver of our free market economy, and any legislation should ensure that our customers and businesses have access to the most efficient and innovative suppliers on the grid.

Second, electricity is, by its very nature, an interstate and increasingly international commerce. Large and seamless regional markets that reward efficiency and cost control will best enhance America's overall ability to successfully compete.

Third, the basic concept of first, do no harm should apply. The collateral effects from incomplete or poorly thought out policy changes could have a negative effect on all electricity users, and certainly, in regions of the country where there are no problems occurring.

We have seen the savings to consumers which competitive regional power markets can deliver. For example, adjusted wholesale power prices dropped 16 percent in the East between the fourth quarters of 2003 and 2004, after the PJM footprint was expanded into the Midwest. The addition of AEP's transmission system allowed previously underutilized capacity to be sold into a larger market, and decreasing prices. It has also been shown that competitive electric markets can conserve natural gas in the short term. In ERCOT, for example, natural gas consumption in electricity production has decreased by 3 percent over the last 4 years, while the electricity produced from this gas increased by almost 8 percent. This was due to the fact that older, inefficient gas plants were displaced by newer combined cycle gas plants, meaning that more generation was able to be produced using far less gas.

Before closing, I would like to comment on a related phenomenon that should concern the committee. A number of States are returning to the use of regulatory guarantees and the creation of a regulatory rate-base to build new generation power. This approach guarantees that local consumers will, once again, bear the risks associated with bad, mismanaged, or unnecessary utility investment. Consumers have been required to absorb some $200 billion in stranded costs from exactly this kind of investment in the 1970's and 1980's. History should be a cautionary tale for all of us. We have no objection to new rate-based generation investment, provided that it is tested and proven to be more beneficial to the consumer than a competitive alternative.

We stand ready to build the next generation of plants, much of which will probably be coal, if given a fair opportunity to compete. In conclusion, we urge the subcommittee to move the Energy Policy Act of 2005 swiftly.

Thank you.

[The prepared statement of Lynne H. Church follows:]

PREPARED STATEMENT OF LYNNE H. CHURCH, PRESIDENT, ELECTRIC POWER SUPPLY ASSOCIATION

Chairman Hall and Members of the Subcommittee: I am Lynne H. Church, President of the Electric Power Supply Association (EPSA) and am here today representing EPSA's member companies. EPSA is the national trade association representing competitive power suppliers, including generators and marketers. Our competitive power industry operates 40% of the installed electric generation capacity in the United States. In 2003, 36% of the power we produced competitively was coal-fired, 30% was from natural gas, and 24% was nuclear. The rest was hydroelectric, other renewables and miscellaneous fuels.

We build and operate power plants without regulatory guarantees or a captive customer base. Our members prosper only if they succeed in meeting the needs of electricity consumers. EPSA member companies have an established track record of providing reliable, competitively priced electricity from environmentally responsible power facilities in the U.S. and global markets.

We appreciate this opportunity to comment on the electricity provisions in the Energy Policy Act of 2005, which in large part are identical to the House-Senate Conference Report from the last Congress. As our past testimony and correspondence makes clear, EPSA supports the passage of this legislation. We do not view the legislation as a panacea for all of the energy issues facing the nation. However, it includes many legislative changes that are long overdue and will greatly benefit our country. The reliability language, the transmission siting provisions, the repeal of PUHCA, the Congressional resolution supporting the development of better regional power markets, and the limited expansion of FERC oversight to some of the transmission capacity operated by public power are examples of positive public policy embodied in this legislation.

Let us encourage you to act swiftly. Regulatory uncertainty has a devastating impact on long-lead time, high capital cost projects—power plants. While many areas of the country have experienced a relative surplus of available generation capacity, we know this doesn't last. As the economy picks up steam, so does the demand for electric energy. Over the next five years, these surpluses will shrink and new capacity will need to be built.

Our companies are recovering well from the ill effects of the economic recession. Stock values are up. Debt has been reduced. And, in large parts of the country, broader regional wholesale markets are beginning to take hold and thrive. EPSA companies have invested over $100 billion in new plants—at no risk to their customers—over the past five years and are poised to bring new capital to meet emerging needs. We've built the most efficient, cleanest and best-run coal, natural gas and renewable power generation in the past, and we're ready and able to build more. We have companies that, for the first time in a generation, are seriously considering new nuclear development. Do not put this critical investment at risk through endless deliberation or ill-advised legislative proposals.

On the other side of the ledger, we have consistently expressed our concern that the "SMD delay" language—a Senate addition—and the so-called "native load provisions" represent poor policy that do little to protect consumers and are more likely to encourage discriminatory behavior, less efficiency and higher societal costs. In addition, we join many other groups in opposing statutory language which prescriptively allocates transmission costs—the "participant funding" provisions.

As you consider this legislation, and any further changes to it, we ask you to keep in mind three basic principles:

First, electricity is a fundamental driver of our free market economy, and any legislation should ensure that our customers and businesses alike have access to the most efficient and innovative suppliers on the grid;

Second, electricity is by its very nature part of an interstate and, increasingly, international commerce. Large and seamless regional markets that reward efficiency and cost control will best enhance America's overall ability to compete successfully in the global economy;

Third, the basic concept of "first do no harm" should apply—the collateral effects from incomplete or poorly thought out policy changes could have a negative impact on all electricity users.

We have seen the savings to consumers which competitive wholesale power markets and regional power markets can deliver. For instance, wholesale power prices dropped 16% in the East, when adjusted for fuel-price and demand variations, between the fourth quarter of 2003 and the fourth quarter of 2004. When the PJM footprint expanded into the Midwest, it allowed previously underutilized capacity to be sold into a larger market, increasing efficiency and decreasing prices. For your information, we have attached a chart detailing some of the cost savings from competitive wholesale power markets. It has also been shown that competitive electric markets can conserve natural gas. Competition rewards efficiency and forces the retirement of inefficient, obsolete facilities. In ERCOT, for instance, natural gas consumption in electricity production decreased by 3% from 1999 to 2003, while the electricity produced from this gas increased by almost 8%.

Before closing, we'd like to comment on a related phenomenon that should concern you. A number of states are returning to the use of regulatory guarantees and the creation of a regulatory rate-base to build new electric power generation. This approach guarantees that local consumers bear the risks associated with bad, mismanaged or unnecessary utility investment. Our recent history which required consumers to absorb some $200 billion in "stranded costs" from exactly this kind of investment in the 1970s and 1980s should be a cautionary tale for all of us. We have no objection to new rate-based generation investment, provided that it is tested and proved to be more beneficial to the consumer than a competitive alternative.

In conclusion, we urge this subcommittee to move the Energy Policy Act of 2005 forward swiftly. We have raised several issues that we hope will be favorably considered and resolved during action by the House and in conference. We strongly urge you to reject any dramatic new proposals which inject crippling regulatory uncertainty into an industry that is ready to commit the hundreds of billions in new investment needed by U.S. consumers.

ORGANIZED MARKETS MEAN SUPERIOR OPTIONS FOR CUSTOMERS

- Bilateral Contracts/Price Indices
- Real-Time Power Markets
- Day-Ahead Power Markets
- Ancillary Services Markets
- Capacity Markets
- Financial Transmission Rights
- Virtual Bidding
- Futures Markets
- OTCFinancial Products

STUDIES DEMONSTRATE SIGNIFICANT COST SAVINGS FOR CUSTOMERS

STUDY	BENEFIT	SAVINGS
DOE's National Transmission Grid Study	Consumer benefit of competition attained	$13 billion per year
Center for the Advancement of Energy Markets Competition in PJM	PJM customer savings in end-use prices paid in 2002 and projects future savings	$3.3 billion in 2002; $28.5 billion present value of future savings
FERC Environmental Impact Statement for 888	Open transmission access and competition through 2010	$3.76-$5.37 bn/yr in 1995 dollars
Synapse Energy Economics, *Electricity Prices in PJM*, June 2004	From 1999-2003, deregulated rates were lower than those generation rates that would have existed under a business-as-usual, regulated environment	
Fraser Alert's *Measuring the Impact of Electricity Deregulation*, October 2004	Retail residential prices dropped 80 percent faster than prices in non-competitive markets; non-residential prices dropped 65 percent	Potential savings in excess of $10 billion for the 1997-2002 period
Operating Efficiencies Study Center for Study of Energy Markets, University of California Energy Institute; MIT Department of Economics — Working Paper Series	Historical improvements in utility-owned plants' operating efficiency in competitive markets as compared with owned plants in regulated markets and with muni-owned plants	Restructured IOUs 5 percent more efficient in non-fuel operating expenses versus unrestructured IOUs. 20 percent in nonfuel expenses versus muni/co-op benchmark
FERC Economic Assessment of RTO Policy	3 Scenarios: 1) Transmission Only; 2) RTOPolicy Case; 3) Demand Response	In 2010 (using 2000 dollars) 1) $0.8 bn/yr; 2) $5.2 bn/yr: 3) $7.5 bn/yr
Assessing the Good Old Days of Cost-Plus Regulation, Boston Pacific, 2003 and 2004	Between 1985-2002, inflation adjusted electricity prices declined on average by 34 percent for residential customers and 39 percent for industrial customers	
Electricity Generation Customer Choice and Competition, A Report to the General Assembly, Pennsylvania Department of Revenue, August 1, 2001	Boost gross state product by $2.3 billion, increase overall employment by 40,000 full-and part-time jobs and increase nominal personal income by $1.8 billion	
Scope of Competition in Electric Markets in Texas, Public Utility Commission of Texas, January 2003	Retail customer choice; regionwide ISO with bid-based balancing energy and ancillary services markets	$1.5 billion in savings for retail customers since the start of deregulation in Texas

Mr. HALL. Thank you. And Mr. Richardson, we recognize you at this time. I must tell you there is a vote pending for any minute, and the votes will probably take about 50 minutes, so as brief as you can be will help. But we are going to hear every one of you, because all of your testimony, despite the fact that it is not before a full panel here, is just the same as before a full panel. It goes into the record. Everybody reads the record, and everybody, all the staffers are here, the main ones are here, the staffers. And thank you for your patience with us. I am sorry that they are going to have a vote; bell could ring any time. When it does, I think I will recess for an hour, and for those of you who can't wait, who can't stay, who have airlines you have to catch, I ask unanimous consent of the ranking member that they be excused from the panel. Your opening statements will go into the record in their entirety.

I recognize you, Al, Mr. Richardson, right now.

STATEMENT OF ALAN RICHARDSON

Mr. RICHARDSON. Thank you, Mr. Chairman. All the members will read the statements, and all of us are happy to be here.

It is a pleasure to be here. My name is Alan Richardson. I am the CEO of the American Public Power Association, and I am pleased to testify today on behalf of the Nation's nearly 2,000 publicly owned electric utilities. APPA continues to support comprehensive energy legislation, for many of the reasons that have been given by others that have testified earlier. I would like to focus my comments on the electricity title of H.R. 6. I address other issues, or the conference report on H.R. 6, I address other issues in my prepared, my testimony, which I know will be printed in full in the record.

With respect to electricity, the goal, from our perspective, at least, should be to promote effective competition in wholesale electricity markets where it is possible to do so for the benefit of consumers, and the wellbeing of our society. While recognizing the regional diversity of these markets and the very unique characteristics of electricity itself, characteristics that make the restructuring of this industry an extremely difficult task. Those characteristics, among other things, have produced rather dramatic changes in industry structure and public and shareholder attitudes in the last couple of years. The events that have produced these changes include the Western energy crisis, the revelation of a broad range of practices to manipulate the energy markets, the financial meltdown of some generators and private power companies, credit rating agency downgrades for utilities with significant merchant generation exposure, and the list goes on.

In view of these changes, private utilities today are pursuing a back to the basics strategy, producing an infrastructure that bears little resemblance to the structure envisioned by proponents of restructuring just a decade ago. These facts, from our perspective, strongly suggest that a fresh start with respect to the electricity title would be appropriate. The legislation that is the focus of this hearing, the conference report on H.R. 6, with some minor modifications, passed the House on November 18, 2003. Behind that event were hearings, the legislation actually dates back prior to 2003, some parts of it back a couple of Congresses. Fifteen months since that vote was taken, there have been yet additional events that have shaped public opinion, and these should be taken into account in formulating energy—public policy. In other words, much of the electricity title's language may, indeed, be past its shelf life and in need of retooling.

You have asked us for our views on the conference report on H.R. 6. Let me set forth some of the specifics, provision that we like, and provisions that we are concerned about. We very strongly support the mandatory reliability legislation, enforceable reliability provisions. If it becomes apparent that comprehensive energy legislation is going to stall out in the 109th Congress, as it has in the last 3 Congresses, then we believe that legislation should move forward on a standalone basis. We are as confused, I think, as everyone else, as to why the dollar limits are included in that legislation. We look forward to clarification from those you have asked to explain why that provision is there.

We support the service obligation provision but suggest certain modifications to ensure long-term physical and transmission rights for both existing and new transmission facilities at predictable prices. Load serving entities such as public power systems are hindered in meeting their service obligation without long-term certainty in transmission. Further, the lack of such certainty is an obstacle in the construction of large base load generation and renewable generation. And if the problem isn't addressed, we place in jeopardy initiatives to expand renewable energy and coal-fired generation, both of which generally must be located far from load.

Transmission siting is an extremely difficult task, and for this reason, we support the Federal Energy Regulatory Commission backstop authority that was proposed in the legislation. Financial incentives for new construction, if addressed in legislation, should be tailored in a way that, for new transmission construction, matches the risk of the investment and the reward provided.

Allocation of costs for new transmission is a very difficult problem, and it is best left to the Commission to resolve on a case-by-case basis. Congress should not dictate how to allocate costs for new transmission. FERC's flexibility in the area should be preserved, so it can fashion cost recovery policies that reflect and respect the needs and goals and the grid characteristics of specific regions.

We do not oppose, but continue to question the need of expanded FERC jurisdiction over transmission facilities owned by publicly owned utilities.

We continue to oppose the repeal of the Public Utility Holding Company Act of 1935, unless accompanied by provisions that ensure FERC has the ability to protect consumers and investors from the probable consequences of such repeal.

Indeed, we believe the evidence is quite strong that the partial repeal of the Holding Company Act in 1992 opened the door to diversification and risky investments that contributed to the financial meltdown of many private utilities, to the disadvantage of consumers and investors, the very people that were presumed to be protected by the Holding Company Act. Wall Street financial analysts now agree, and they have entered into this debate in opposition to repeal. We also strongly oppose limitations placed on the exercise of FERC's merchant review authority.

Finally, instead of Congressional directive identifying and prohibiting a specific electric trading practice, as is contained in the conference report on H.R. 6, we believe the Commission should be authorized to undertake a rulemaking proceeding to identify all practices intended to manipulate the wholesale market, and Congress should then authorize the Commission to levy significant penalties, including the withdrawal of the privilege of selling power at market-based rates for entities that are engaged in these practices.

That concludes my summary, Mr. Chairman. Thank you very much.

[The prepared statement of Alan H. Richardson follows:]

PREPARED STATEMENT OF ALAN H. RICHARDSON, PRESIDENT AND CEO, AMERICAN PUBLIC POWER ASSOCIATION

Chairman Hall, Ranking Member Boucher, and members of the Subcommittee, my name is Alan Richardson, and I am the President and Chief Executive Officer of the American Public Power Association (APPA). Thank you for the opportunity to appear before you today to discuss APPA's views on comprehensive energy legislation.

APPA is the service organization for the nation's more than 2,000 community-owned electric utilities that serve over 43 million Americans. The utilities include state public power agencies, municipal electric utilities, and special utility districts that provide electricity and other services to some of the nation's largest cities such as Los Angeles, Phoenix, Seattle, San Antonio and Jacksonville, as well as some of its smallest towns. Indeed, the vast majority of these utilities serve small and medium-sized communities in 49 states, all but Hawaii. In fact, 75 percent of publicly owned electric utilities are located in communities with populations of 10,000 people or less.

Public power systems were created by state or local governments to serve the public interest. More than 500 public power systems have, or by the end of this year will have, celebrated their 100th anniversary. One of the most fundamental values that all APPA members share is local control. Like public schools, police and fire departments, and publicly owned water and waste water utilities, public power systems are locally created governmental institutions that address a basic community need: the provision of an essential public service at a reasonable price. Public power systems share the core mission and obligation to provide reliable and low-cost electric power to their retail and wholesale requirements customers, consistent with good environmental stewardship, and to do so year in and year out. Because they are locally controlled, the interests of public power systems are aligned with the long-term interests of their respective customers and communities.

Publicly owned utilities also have an obligation to serve the electricity needs of all their customers. They have maintained this "obligation to serve," even in states that have introduced retail competition. Public power's ongoing commitment to its service obligation in those local communities requires it to pay attention to long-term infrastructure needs. Because infrastructure is so critical to the future of the electric industry in general, and public power systems specifically, APPA can only support legislative initiatives that bolster our members' commitment to maintain existing infrastructure and to enhance their ability to develop needed new infrastructure. Without adequate transmission and generation infrastructure, public power cannot meet its service obligations.

APPA has consistently supported a comprehensive approach to energy policy. APPA has continually asserted that there are a number of areas where the Administration and Congress should act to enhance the viability of traditional fuels used to generate electricity, promote the commercialization of new, alternative sources of electricity, increase energy conservation, and provide adequate energy assistance to low-income households.

The 109th Congress is now underway and the debate on comprehensive energy legislation is set to be renewed. The Conference Report for H.R. 6, 108th Congress, will serve as the foundation for the upcoming debate on energy legislation in the House of Representatives, while the other body is taking a step back from legislation previously considered to determine whether the proposals advanced in the last few years still meet the needs of our country in 2005 and beyond. While some aspects of H.R. 6 still reflect sound public policy, others are dated and should be reconsidered.

Much of my testimony will focus on those provisions contained in the conference report that are directly related to electricity. However, I would first like to comment on other aspects of H.R. 6 that continue to be of great interest to APPA. The following is a brief summary of major issues APPA supports, outside of the scope of the electricity title:

Comparable Incentives for Renewable Energy Facilities

Many APPA members are extremely interested in expanding their portfolio of renewable generation facilities and contracts. The Conference Report for H.R. 6 originally contained a substantial energy tax title, which included production tax incentives for renewable generation by private entities, but contained no comparable incentive for public power systems and cooperatively owned utilities. Comparable incentive language had been included in the Senate-passed version of comprehensive energy legislation, but was stripped out of the final bill in conference.

These incentives are intended to stimulate investments that advance our overall national energy policy—specifically greater investment in renewable energy. However, they do not work for the nearly 3,000 publicly and cooperatively owned electric utilities that provide electricity to over 25% of the nation's consumers. If the goal is to promote these socially beneficial investments, it is imperative that a comparable incentive be available to this sector of the electric utility industry for renewable energy facilities. This is particularly important now that several states have passed, or are considering, renewable portfolio standards. APPA strongly supports the inclusion of a comparable incentive plan in comprehensive energy legislation.

Hydroelectric Relicensing

Over the next 15 years, two-thirds of all non-federal hydroelectric capacity—which totals nearly 29,000 megawatts of power and can provide enough electricity to serve six million retail customers—must undergo the Federal Energy Regulatory Commission (FERC) relicensing process. The relicensing of each hydro project may potentially result in a significant loss of existing capacity due to the operational changes that relicensing requires at specific projects. Such lost capacity must be replaced by less efficient generation sources that are likely to impose additional costs on consumers and produce greenhouse gas emissions. Therefore, APPA believes that improvements to FERC's hydroelectric licensing and relicensing processes are a necessity. APPA supports the hydro language contained in the House-passed Conference Report, and would urge the Subcommittee to retain it.

Renewable Energy Production Incentive

APPA strongly supports the reauthorization of and changes to the Renewable Energy Production Incentive (REPI) program contained in the Conference Report for H.R. 6. REPI was established by the Energy Policy Act of 1992, and authorizes the Department of Energy (DOE) to make direct payments to publicly- and cooperatively-owned electric utilities for electricity generated from solar, wind, landfill-gas, and certain geothermal and biomass projects. It was intended to provide incentives to public power for investment in renewable energy that were comparable to those provided to for profit utilities through the tax code. Because this program has been grossly under-funded, it has never fulfilled its primary mission. While we strongly believe REPI should be updated and preserved, we also believe, as noted above, that Congress should create a program that provides comparable financial incentives to those offered to for-profit companies to encourage investment in renewable and clean energy facilities. Since 1995, REPI has funded more than 36 renewable energy projects in 17 states. REPI's authorization expired in 2003.

The renewable energy title in the Conference Report includes the language APPA advocates to reauthorize and reform REPI. It extends REPI for another ten years and directs DOE to allocate funds during funding shortfall years to all projects on a more equitable basis than is the case under the current process. The language also clarifies that landfill gas-to-energy projects and Indian tribal governments are eligible for funding under REPI. The reauthorization of REPI is a high priority for APPA in any comprehensive energy measure that Congress may consider.

Price-Anderson Act Reauthorization

The Price-Anderson Act, a law that indemnifies DOE contractors and Nuclear Regulatory Commission (NRC) licensees for damages resulting from nuclear incidents, expired in 2003. A two-year extension of Price-Anderson coverage for DOE contractors was included in the FY 2005 defense authorization bill (H.R. 4200), which was approved by Congress on October 9, 2004.

The Conference Report for H.R. 6 sought to extend Price-Anderson coverage for new commercial reactors and new DOE nuclear contracts through the end of 2023. The legislation raised the maximum reactor assessment from $88 million to $95.8 million and the limit on per-reactor annual payments from $10 million to $15 million, while at the same time limiting DOE contractor indemnification to $10 billion. APPA supports the long term reauthorization of the Price-Anderson Act.

Clean Coal Technology

The Conference Report for H.R. 6 contains a 15% investment tax credit for retrofits or re-powering of existing coal units with qualifying "basic" clean coal technologies (including advanced pulverized coal or atmospheric fluidized bed combustion, pressurized fluidized bed combustion and integrated gasification combined cycle). Such technologies must meet certain pollution control requirements and comply with a design net heat rate of at least 500 BTU/KWh less than the heat rate of the existing coal-based unit prior to conversion. Up to 4000 megawatts of capacity nationwide would be eligible.

A 17.5% investment tax credit is provided in the Conference Report for H.R. 6 for a new advanced clean coal technology unit meeting certain carbon and heat rate requirements, which vary among eligible technologies. These technologies include advanced pulverized coal, atmospheric fluidized bed combustion technology, pressurized fluidized bed combustion, integrated gasification combined cycle, and others. Up to 6000 megawatts of capacity nationwide would be eligible. APPA supports clean coal technology research and development, as well as incentives for such development, so long as they are linked to comparable investment incentives that are available for public power systems and rural electric cooperatives.

Energy Conservation

The H.R. 6 Conference Report would have established a program for developing plans for increasing energy and water conservation in congressional buildings. It sets targets and timetables for energy consumption reductions in federal buildings nationwide and permanently extends existing authority provided to federal agencies to contract with energy service companies to assume the capital costs of installing conservation equipment and renewable energy systems in federal facilities or buildings. The legislation expands the use of these contracts to cover the replacement of existing federal buildings with new, more energy-efficient buildings and expands the definition of energy savings to include a reduction in water costs. The language also directs federal agencies to procure Energy Star or Federal Energy Management Program designated-energy efficient products. Furthermore, the language authorizes $20 million annually through FY2006 for grants to local governments, community development corporations, and Indian tribes for efficiency and renewable energy projects in low-income communities and authorizes $3.4 billion annually from FY2004 through FY2006 for the Low-Income Home Energy Assistance Program (LIHEAP). APPA remains very supportive of the energy efficiency and conservation goals set forth in the Conference Report.

ELECTRICITY

The House first passed the H.R. 6 Conference report on November 18, 2003. In the fifteen months since that vote, there has been a great deal of change in the electric utility industry. Much of the electricity title's language may indeed be past its shelf life and in need of retooling. While APPA supports the goal of ultimately passing comprehensive energy policy legislation, we urge the Subcommittee to exercise caution when addressing a number of the provisions contained in the Conference Report's electricity title.

The goals of federal electricity restructuring policies should be to promote effective competition in wholesale electricity markets where it is possible to do so for the benefit of consumers and the well-being of our economy, while recognizing the regional diversity of those markets and the very unique characteristics of electricity. APPA believes that the number of electricity policy issues requiring congressional action has decreased since the passage of H.R. 6. To achieve a more robust marketplace, APPA believes that the Federal Energy Regulatory Commission (FERC) must use its existing authorities under the Federal Power Act to, among other things: allow market-based rate sales only by sellers that cannot exercise market power, through use of mitigation measures if needed; ensure transparent market information; remedy market power abuses in a timely manner; ensure that existing Regional Transmission Organizations (RTOs) put the interests of consumers first and foremost; and clarify and enforce open access transmission rules in non-RTO regions. In addition, the market power protections contained in the Public Utility Holding Company Act (PUHCA) should be enforced by the Securities and Exchange Commission (SEC), and the Act must not be repealed by Congress outright.

I will now discuss specifically a number of the electricity related provisions contained in the Conference Report for H.R. 6.

Electric Reliability Standards (Sec. 1221)

The Conference Report for H.R. 6 creates mandatory reliability standards promulgated by an electric reliability organization with regional stakeholder input. The language comports with that agreed to previously by APPA and other industry stakeholders. APPA strongly supports the reliability language contained in the Conference Report. Should comprehensive energy legislation stall once again, we believe Congress should move the reliability provisions on a stand alone basis.

Siting of Interstate Electric Transmission Facilities (Sec. 1221)

The language included in the H.R. 6 Conference Report grants FERC "backstop" transmission facilities siting authority (through the use of eminent domain) in areas identified by DOE as critical transmission congestion pathways, if a state has delayed or denied a permit. The provision authorizes interstate siting "compacts" to help identify regional siting priorities. The siting authority applies to both existing and new transmission facilities. There is an ERCOT (Electric Reliability Council of Texas) exemption.

APPA is generally supportive of this approach to the transmission siting issue. The need for new transmission infrastructure is one of the most pressing issues facing the industry and the public it serves. APPA does urge the Subcommittee to look carefully at provisions dealing with state "compacts" that could undermine the effectiveness of this section in siting new transmission.

Third Party Finance (Sec. 1222)

This provision authorizes WAPA and SWPA to engage in certain financing and operation arrangements for existing and new transmission lines with a cap of $100 million for 10 years from third-party contributions. APPA is concerned that this provision addresses a problem that does not now exist (if, indeed, it ever did). Third-party arrangements have been entered into absent any federal statute, as demonstrated by WAPA's partnerships for the construction of the Path 15 transmission line in California. APPA is concerned that this language could actually slow down the process by which WAPA and SWPA undertake to build new transmission facilities. We recommend this portion of the electricity title be deleted.

Open Nondiscriminatory Access (Sec. 1231)

Known as "FERC-lite," this provision requires an "unregulated transmitting utility" (certain public power systems and rural electric cooperatives, the Tennessee Valley Authority and the Power Marketing Administrations) to provide open access to their transmission facilities at rates comparable to what they charge themselves and under terms and conditions comparable to those they apply to themselves. Systems that do not sell more than 4 million MWh of electricity annually or that do not own or operate transmission facilities necessary for operating an interconnected grid are exempted. The provision clarifies that nothing in this section authorizes FERC to order an unregulated transmitting utility to join an RTO. The provision also includes the comparability language sought by APPA, as well as a limitation on FERC's ability to require an action under the section which would result in a violation of private use restrictions on municipal bonds. While APPA is still not convinced that this provision is necessary, we are not seeking any changes to the language at this time.

Regional Transmission Organizations (Secs. 1232-1234)

In light of many changes since the passage of the H.R. 6 Conference Report in November of 2003, the Committee should reconsider the need for sections 1232-1234. APPA members, once strong supporters of Regional Transmission Organizations (RTOs) in theory, now find serious problems with the functional RTOs in practice. Our concerns are set forth in a publication entitled, *Restructuring at the Crossroads: FERC Electric Policy Reconsidered.* This report is available on the APPA website, www.appanet.org.

If the Committee retains section 1233 regarding RTO progress reports, we would recommend that FERC be directed to report on its progress in addressing specific RTO problems we identified in our report. These problems include: increasing RTO administrative costs; unaccountable governance and lack of responsiveness to customer needs; and implementation of new markets that are not clearly shown to benefit end use consumers. Another serious problem in RTO regions is the lack of available long-term physical or financial transmission rights. In an industry with lo lead times for construction and long life span of generation facilities. t a of long-term physical or financial transmission rights is a serious im lic power systems in RTO regions need both assured long-term access and predictable transmission rates. Their absence is hampering public power's ability to enter into the long-term generation commitments that are critical to fulfilling their service obligations. FERC has begun to focus on RTO administrative costs, governance problems and the need for assured long-term transmission access at reasonable rates. We believe that periodic reports from FERC to Congress on its progress in addressing these problems would be appropriate. Congressional attention to these matters might well promote the "mid-course corrections" with respect to RTO policies that APPA has recommended.

Standard Market Design (Sec. 1235)

This provision states that no final rule mandating a standard electricity market design pursuant to the Standard Market Design Notice of Proposed Rulemaking (SMD NOPR), including any rule or order of general applicability within the scope of the NOPR, may be issued before October 31, 2006, or take effect before December 31, 2006. Due to shifts in policy direction at FERC, APPA believes that this provision represents a legacy from the past and is likely now unnecessary within the context of a Federal electricity title.

Native Load Service Obligation (Sec. 1236)

This language was drafted to protect the ability of load-serving entities (LSEs) to access transmission to serve their native loads under any kind of transmission pricing and allocation regime, unless an RTO or ISO has determined its transmission pricing methodology prior to September 15, 2003. When this provision was originally crafted, FERC's Standard Market Design NOPR was seen by many as a looming threat to the ability of LSEs to maintain access to the transmission rights necessary to serve their native load. Because SMD does not pose the same threat that it did at the time this legislation was originally passed, it would be appropriate to review this section once again, to ensure that it accomplishes its intended purpose.

The counterpart to this language as it emerged from the Senate in 2003 specifically provided that transmission rights of transmission owners or holders of transmission rights as a result of contracts or service agreements would be protected and further, that the holders of such rights could elect whether to accept firm transmission rights or equivalent tradable or financial rights. This option was not included in the conference report for H.R. 6. Yesterday, February 9, APPA's policy committee reaffirmed this position as follows: "That APPA supports appropriate legislative language confirming that transmission owners and other load-serving entities (including public power transmission dependent utilities) are eligible for service obligation protection under any comprehensive energy legislation to be passed, and should have the unequivocal right to elect to use their physical transmission rights to meet their service obligation, and only on a voluntary basis exchange these physical rights for tradable or financial transmission rights."

While the section addresses the preservation of existing transmission rights in order for utilities to meet their service obligations, it is silent on their ability to obtain new, long-term transmission rights. Yet future long-term rights and predictable transmission rates are critical to meeting future long-term obligations. They are equally critical to the development of new renewable generation resources, particularly wind, and new base load generation, which generally must be built far from load. APPA believes this section should be modified to address this issue.

Transmission Infrastructure Investment (Sec. 1241)

The legislation requires a FERC rulemaking on transmission rate incentives, with some incentives applicable to all transmission owners (TOs), and significant incentives applicable to TOs that participate in RTOs or ISOs (including accelerated depreciation of new transmission facilities over a maximum of 15 years).

APPA believes that this language should be redrafted so that the "reward" matches the risk for the siting, construction, and utilization of new transmission facilities. This means that incentives should not be awarded through excessive rates of return after transmission has been built and placed in service. At that point, the investor's risk is relatively low and the return on investment should reflect that fact. Instead, higher reward in the form of greater assurance of cost recovery should be given to entities willing to take the risk of building transmission facilities in areas in great need of infrastructure while they are in the process of obtaining the necessary permits and constructing the facilities.

The industry badly needs new transmission infrastructure, and public power represents an untapped resource for the development of such new facilities. Public power systems serve approximately 15% of the nation's retail load. They have maintained high credit ratings during recent years, when many investor-owned utilities have experienced difficult financial situations due to their aggressive diversification and growth strategies. Public power systems are willing and able to invest in transmission facilities provided they receive the concomitant long-term transmission rights. APPA would urge Congress to explore avenues to encourage joint ownership of new transmission facilities by all load-serving entities in a region, be they public or private.

Voluntary Transmission Pricing Plans (Sec. 1242)

Commonly known as the "participant funding" provision, this section of the H.R. 6 Conference Report enables investor-owned transmission owners, RTOs and ISOs to propose transmission pricing plans for transmission upgrades that FERC must approve. While the section is very convoluted (which is in itself a problem), the practical effect is that virtually all transmission facilities deemed to be needed for "economic" purposes (rather than "reliability" purposes) would be funded by the party requesting transmission service, even if many other transmission customers would benefit from those same facilities.

APPA remains strongly opposed to this provision of the Conference Report. APPA believes that this pricing scheme should not be mandated and that Congress should respect the diversity and flexibility of each region to address this issue as it sees fit. FERC is allowing each RTO to develop, through a regional collaborative process, the pricing plan for new transmission facilities applicable in that region. A form of participant funding is, for example, being used in PJM, while the New England ISO has adopted a very different method, and the Southwest Power Pool RTO is developing yet a third approach. Hence, this mandate is both unnecessary and potentially counterproductive. It could also stall the development of new transmission facilities, thus potentially impacting the overall reliability of the bulk electric power system.

Amendments to PURPA (Subtitle E)

This subtitle contains language that addresses the termination of mandatory purchase and sales requirements. The provisions direct FERC to issue a rulemaking, within 180 days from enactment, revising the criteria for new qualifying cogeneration facilities seeking to sell electric energy. They mandate that this rulemaking shall insure the thermal energy output is used in a productive and beneficial manner, as well as meeting other criteria, and direct state regulatory authorities and electric utilities to make available, upon request, real-time pricing and net-metering services. APPA believes these provisions have been carefully crafted and support their inclusion in future legislation.

Repeal of PUHCA (Subtitle F)

The Public Utility Holding Company Act of 1935 (PUHCA) is repealed twelve months after the date of enactment of the bill. APPA strongly opposes repeal of PUHCA unless FERC is simultaneously given the authority to address the probable consequences of repeal.

Opponents of the Holding Company Act have been calling for its repeal ultimately since its enactment 70 year ago. Today, PUHCA repeal is advanced, in part, to address the perceived needs of a disaggregated and restructured industry that was envisioned in the almost euphoric deregulation climate of the late 1990s. PUHCA was enacted to protect investors and consumers from abusive and market manipulative activities and to ensure effective regulation of utility holding companies controlling vertically integrated utilities. A few years ago it was believed that the vertically integrated utility model of the past would soon be displaced by a multitude of participants, each with a different focus—transmission, generation, distribution, marketers, etc. As a result, the need for PUHCA would disappear. However, the envisioned industry transformation has not occurred and indeed public utilities are now pursuing a "back to the basics" strategy, which includes a return to the vertically integrated structure of past decades. In other words, the industry structure is precisely the structure PUHCA was created to regulate in order to protect the interests of investors and consumers.

Advocates of PUHCA repeal also characterize the Act as an impediment to investment in the industry. A report a year ago from Standard & Poor's noted that this argument "does not seem to hold much water after the power generation market imploded." S&P went on to note that investors have a solid appetite for companies with stable, regulated revenues.

A point on which almost all agree is that PUHCA repeal will promote further consolidation within the industry. Consolidation and a reduction in the number of industry participants will not promote a more competitive market.

Among the provisions that should be considered to ac
repeal is still deemed good public policy, are: explicit a
transfers of generation assets, utility holding comp
natural gas and electric utilities; enhancement of

thority, with a higher threshold for merger approval; expanded FERC authority to identify market manipulative and anti-competitive behavior; authority to impose substantial penalties for violations; and truly meaningful access to holding company books and records.

Market Transparency, Enforcement, and Consumer Protection (Subtitle G)

This subtitle includes a ban on round-trip trades and the filing of false information, instructs FERC to establish market transparency rules within 180 days of enactment of the bill, and imposes penalties for violations. The positive changes that APPA and others had advocated for and won in the House and Senate bills are minimized by the addition of a new "savings clause" that prevents FERC from regulating other providers of market information (e.g. trade publications) or from competing with them. In addition, language preserving exclusive Commodity Futures Trade Commission (CFTC) jurisdiction was added, enhancing the potential for significant jurisdictional confusion between FERC and CFTC.

APPA would like to see a stronger and clearer market transparency and consumer protection provision contained in the electricity title. The legislation identifies and prohibits one market manipulative practice utilized by certain market participants—round trip trades. But there were many more, including the very recent discovery of Enron traders colluding to withhold generation capacity from the market (with callous disregard for the effects on the economy and the public of rolling blackouts). FERC should have the authority to identify abusive practices by rule, and the ability to impose substantial penalties for violations. There are many important consumer protection issues facing FERC today, including the issue of what standards it will use to grant authority to public utility sellers to charge market-based rates. FERC should be encouraged to deal with such market power issues, to protect electric consumers from the payment of unjust and unreasonable rates.

Refund Authority (Sec. 1285)

Also known as the "uniform refund authority" provision, this language asserts FERC's authority to order refunds if certain non-jurisdictional entities violate FERC rules. The language applies to public power systems with sales above eight million MWh of electricity annually. It applies to "short-term" sales—meaning sales agreements in effect for 31 days or less. Rural electric cooperatives are explicitly exempt. TVA, SWPA, SEPA and WAPA are subject to FERC's authority in this regard only insofar as FERC can order refunds of these federal entities to achieve a just and reasonable rate. FERC's authority to order refunds of BPA sales under this section is even more limited than for the other federal utilities.

This provision originated from allegations of market manipulation by non-jurisdictional public power systems during the Western energy crisis. Subsequent investigations and settlements, however, have not shown such an extraordinary remedy to be merited. In the absence of any demonstrated need for this provision, we do not believe it is necessary.

Sanctity of Contract (Sec. 1286)

This provision requires FERC, before abrogating certain contracts, to find that such action would meet a "public interest" standard (known as the Mobile-Sierra standard of review), unless the contract expressly provides for a different standard to apply. The provision would be applied prospectively. In the absence of express language, any future contracts could only be abrogated if a party of the contract could prove that abrogation of the contract is "in the public interest"—a higher threshold than demonstrating that the contract rate or terms are unjust and unreasonable (the standard contained in Sections 205 and 206 of the Federal Power Act)—and thus more difficult to prove.

We are very concerned about the consequences of this provision. Where two parties to a contract do not have equal bargaining power, the stronger party could insist that the contract be silent on the terms of review, resulting in the application of the Mobile Sierra "public interest" standard by default. Public power systems are frequently the weaker of two parties in such bargaining situations. Because they have an absolute obligation to meet the needs of their customers, and often have only a limited number of contractual options, they may have little choice but to accept a contract that is contrary to their interest, not through legitimate negotiations with the other party, but by Congressional fiat. Through this provision, they could well be deprived of the protection of the "just and reasonable" standard to which they should and otherwise would be entitled under the Federal Power Act. In essence, this provision substantially undermines the "just and reasonable" standard itself—one of the most fundamental consumer protection provisions of the Act. We recommend that this provision be deleted.

Merger Reform (Subtitle H)

The Conference Report would modify FERC's merger review authority to provide the Commission with authority to review holding company mergers. This subtitle requires a DOE study to determine whether or not FERC's merger review authority under the Federal Power Act is redundant of other federal and state authorities. FERC must also report to Congress annually on the actions it took on mergers in the previous year. In addition, these provisions raise the threshold of asset dispositions reviewable under Section 203 of the Federal Power Act to those valued at $10 million or more, and also limit the total time that the Commission has to review a merger to 360 days. Finally, the bill also eliminates the review of convergence mergers.

While we find the increase in the dollar threshold for FERC review of mergers reasonable, we oppose the balance of this section. We find these provisions particularly inappropriate when combined with the repeal of PUHCA, which is also included in the Conference Report and is noted in greater detail above, which will likely trigger a large number of mergers and consolidations within the electric utility industry. It is unlikely the new time limits set forth by this provision for FERC review will allow the Commission the adequate amount of time to review all of the potential mergers in a thorough fashion. If anything, APPA believes FERC's authority to review public utility's mergers and property acquisitions should be strengthened. For example, FERC should be given authority to review the disposition of generation assets by public utilities.

Studies (Title XVII)

Section 1611 requires FERC to assess the "reliability and consumer" effects of the exemption for public power systems and rural electric cooperatives set out in Section 201(f) of the Federal Power Act. This study is to be completed no later than five years after the date of enactment of the bill and every five years thereafter.

There seems little reason for this provision. While there were allegations of bad behavior by some western public power systems, there has generally been no evidence or judgments to support those claims. Despite the absence of evidence that the lack of FERC jurisdiction over transmitting publicly owned utilities has caused problems that have not and cannot be addressed through FERC's "comparability" requirements, the bill expands FERC's authority over some publicly owned transmitting utilities. In view of these facts, it would seem that the additional study requirement called for in this title is totally irrelevant and unneeded.

Thank you, once again, for allowing me to appear here today to testify on this important matter. APPA hopes to work with members of this Subcommittee as the debate on comprehensive energy legislation continues. I would be happy to answer any of your questions.

Mr. HALL. Thank you very much. Mr. Hansen has to catch a plane, I think, at 3, and I am going to stay here with you to hear your presentation, and I have asked the staff to tell me when I had 4 minutes to get over there. It is only about a mile, and I am a jogger, and I want to hear your presentation, and honor you as a former employee of "Scoop" Jackson. He was a special friend of mine, with Sterling Monroe and all that group out there. A great, great organization, and a great Senator. You have a great background.

STATEMENT OF ED HANSEN

Mr. HANSEN. And it was an honor working for Sterling as well. Thank you, Mr. Chairman, and I would also like to thank Congressman Inslee, who represents the south half of Snohomish County. My name is Ed Hansen. I am the General Manager of Snohomish County Public Utility District, headquartered Everett, Washington. That is about 25 miles north of Seattle. I am testifying today on behalf of the Large Public Power Council.

LPPC members directly or indirectly provide reliable, affordably priced electricity to almost 22 million homes and businesses. Member companies are publicly owned and locally controlled. Member companies own almost 33,000 miles of transmission, and control over 61,500 megawatts of generation. LPPC members are located in States and territories representing every region of the country, including several States represented by members of this subcommittee, including Georgia, Florida, Texas, California, New York, and Arizona. Snohomish PUD serves approximately a population of 670,000 people, and approximately 295,000 customers. We are also a member of the American Public Power Association, and I join in the comments and remarks of Alan Richardson.

The subcommittee has worked hard to craft energy legislation over the years. It is our understanding that this year, you will once again proceed down that road. However, we urge caution as you get behind the wheel. The road is uncertain, and the path is not clear. It may be necessary to go slow and exercise caution, so that the Nation does not have a collision like the one that occurred in the West. The California energy crisis has left scars in the West, and has made those of us in the Pacific Northwest very nervous about more changes in the electricity market and the transmission system.

Many of the provisions in the legislation considered in the 106th, 107th, and 108th Congresses were based on policies which have been overtaken by events, including the California blackouts of 2001, and the failure of that market, the manipulation of the Western energy markets and transmission grid by Enron, and the increasing costs associated with ISOs and RTOs. As a result, some of the policies advocated in the energy legislation from the last Congress, the H.R. 6 conference report, should be reconsidered and retooled to address the latest information available.

Our fundamental position is this. We are first and foremost concerned about our customers. Many of the electricity customers in this country are paying far too much for basic electric service, a critical necessity for our Nation. This is due to many factors: the high price of natural gas, droughts in the West, and instability in the market, to name a few. At my first PUD commission meeting as General Manger, in July 2002, a mother of 3 young children appeared before our commission. Her power had been disconnected because she was unable to pay her power bill. She explained that the increased power bill had made it impossible to feed her children and pay her power bill. She asked who will speak for the ratepayer. As you mentioned, Mr. Chairman, I also was a local elected official for a number of years, and I feel that I am here today also speaking for the ratepayer.

Our utility is experiencing a record level of disconnects and uncollectible accounts, because more of our customers are unable to pay their power bills, but the higher power bills affect all classes of customers, including our largest industrial customers, and in Snohomish County, that is Boeing and Kimberly Clark. Just last week, I met with Kimberly Clark executives, who explained that their Everett mill, with 1,000 employees, 1,000 important jobs in our community, could not continue to operate in Everett, in the competitive business environment, because of our current power rates. They explained that in less than 4 years, the power costs at their Everett mill had risen so much that they were now second highest among 31 Kimberly Clark plants in North America. Trying to run——

Mr. HALL. If you can begin to conclude. I think I have 3 minutes left.

Mr. HANSEN. Thank you. Well, I will conclude. I would be happy to answer any questions.

[The prepared statement of Ed Hansen follows:]

PREPARED STATEMENT OF ED HANSEN, GENERAL MANAGER, SNOHOMISH PUBLIC UTILITY DISTRICT ON BEHALF OF THE LARGE PUBLIC POWER COUNCIL

My name is Ed Hansen and I am the General Manager of Snohomish Public Utility District, located in Everett, Washington, located 25 miles north of Seattle. I am testifying today on behalf of the Large Public Power Council (LPPC), an association of 24 of the largest public power systems in the United States. LPPC members directly or indirectly provide reliable, affordably priced electricity to almost 22 million homes and businesses. Our members own almost 33,000 miles of transmission and control over 61,500 MW of generation. LPPC members are located in states and territories representing every region of the country, including several states represented by members of this Subcommittee—such as Georgia, Florida, Texas, California, New York, and Arizona.

LPPC has testified before the Subcommittee on energy policy and we have worked closely with members of the Subcommittee and full Committee and their staff members. We appreciate the opportunity to continue our substantive involvement. Thank you for this opportunity to express the views of LPPC. **Public Power is Unique**

Public power systems are owned by the communities we serve, not by investors. We are not-for-profit entities, which makes us different. Public power systems have been a part of the nation's electric system since the late 1800s. Most LPPC members own and operate generation, transmission and distribution facilities, and several members purchase energy from TVA or BPA. LPPC members provide highly reliable, low cost electric service to their citizen-customers, who also often elect the public power boards.

Electricity is a vital component of our lives and, as vividly illustrated in the State of Washington, a cornerstone of the economy. There are dire consequences if electricity is not reliable and affordable. As the electric supply of the country has been "deregulated," many providers of electricity have sold off their generation or transmission assets or have severed their direct relationship with electric customers. But public power systems still have an obligation to serve the customers for which the systems are built. This service obligation is generally imposed by state law or local ordinance, sometimes by the statute creating the public entity. As a result, all available resources go first to serving customers. Power is sold only if it is surplus to our customer's needs.

Our rates do not include profits; and include only the costs of producing or purchasing and delivering power to our customers and, in some cases, payments to our governing boards or municipal entities as a component of the local budget. Since public power systems are locally controlled, decisions about policies such as rates are made by people who are in touch with local concerns. Elected councils and boards set policies for many LPPC members. Local control ensures that we respond to community needs. In addition, since public power systems are community based, our revenues stay close to home. This helps keep the local economy strong.

The Need for Market Reforms

The House Energy & Commerce Committee and this Subcommittee have held over 30 hearings in the last seven years on the issues of energy policy and electric restructuring. LPPC has testified before this Subcommittee and the full Committee on numerous occasions. LPPC was the first organization to provide a public letter of support for H.R. 6 to then-Subcommittee Chairman Joe Barton and then-Committee Chairman Billy Tauzin.

This Subcommittee has undertaken tremendous efforts to become well educated about the electricity industry. However, this industry has undergone fundamental changes since the early consideration of H.R. 6. The California meltdown, the evidence of Enron's manipulation and proposed one-size fits all regulatory policies have contributed to dramatic instability in the industry for all participants and for consumers. The capital market for utility infrastructure has been shaky, constraining investment in infrastructure. Many LPPC members and our customers have serio concerns about legislating major changes to electric power markets at this time. c cerns which are shared by our city and state governments. Any legislative a must be cautious and carefully considered especially in light of recent events.

Expansion of FERC Jurisdiction (Open Access)

One issue of primary concern for LPPC, one that affects our ability to continue to support legislative action is the issue of expanded FERC jurisdiction. LPPC member companies provide open access transmission service. In 1999, LPPC worked with Congressman Joe Barton, then chairman of this Subcommittee, to guarantee open access transmission service by non-jurisdictional entities. Public power agreed that extremely limited FERC jurisdiction could be extended to public power systems and cooperatives in order to ensure that open access transmission service would be provided to all market participants.

LPPC looks forward to working with the Subcommittee to refine the language so that it will preserve the original intent and respect the compromise that was made five years ago. We hope that the provision can clearly indicate to all that public power, cooperatives, TVA and the PMAs are to provide open access transmission services—that is, service to others that is comparable to the service they provide themselves. This is in keeping with FERC's current policy and the requirements of Order 888. Native Load Service Obligation

The ability of public power systems to serve our local communities is an issue of paramount concern to LPPC member systems. Although we support open access transmission policies, we do not want to risk the reliable, reasonably-priced power that our customers expect and are entitled to receive. We want to thank the Committee, and Congressman Norwood, for addressing this issue in H.R. 6, because, for us, it is about protecting our customers. LPPC supports the continued inclusion of provisions on service obligation, such as those contained in Section 1236 of the H.R. 6 Conference Report.

Public power systems are established by state law and are obligated, generally by state law, to provide electric service to their customers. We need to maintain and preserve the ability to fulfill this obligation. Some LPPC member systems have built their transmission system specifically to serve their customer base. This transmission has been and is being paid for by our customers/owners. Our customers want to be assured that the transmission system which they paid for and which provides them their electric power at reasonable rates, will continue to be available to them first—with any excess to be made available to others who are not customers. The native load—service obligation provisions contained in the H.R. 6 Conference Report allows us to continue to fulfill our obligations to our customers.

LPPC members have also entered into long-term bilateral contracts in making our long-term generation and transmission decisions. These firm commitments allow for stable and secure electric rates and reliability. They provide for certainty in the market and allow the parties to make operational and investment decisions over the long-term, decisions that are necessary for the continued expansion of a functioning electric generation and transmission system. Without this kind of certainty as to the future, obtaining approval from public governing bodies for generation and transmission investments would be difficult, if not impossible.

In summary, the key point for us is that our customers should not have to pay twice for their transmission system—first to build it and then to use it when someone else outbids our customers. Our customers have paid for the critical transmission lines necessary to move power from our own or distant generation sources to meet our service obligation to our communities. If we are required to pay congestion charges whenever our use and the demands of others exceed the capacity of the line, our customers would, in effect, be "double billed" for the same transmission capacity. Therefore, the continued inclusion of these provisions is important to LPPC and we appreciate all of the efforts to address this issue.

Grid Security

Ensuring the security and reliability of the grid is a critical issue for LPPC, Congress, DOE and FERC. All responsible steps must be taken to protect the grid from physical disruption. LPPC has supported mandatory reliability standards prescribed and enforced by an Electric Reliability Organization (ERO) or by an interconnection-wide regional reliability authority, under FERC supervision (the "NERC compromise"). Until this new system is in place, LPPC members will continue to comply with current voluntary standards. FERC's authority under the new system, once it is in place, should not provide a basis to micromanage utility operations or to expand FERC authority beyond what is necessary to ensure reliability.

More than regulatory enforcement of reliability standards is needed to ensure reliability and continuity of electric service. Assurance of reliability requires upgrading the grid and deploying new technology that permits the grid to be managed more effectively. LPPC members have been leaders in both of these areas. NYPA has been one of the first transmitting utilities to place the advanced FACTS (Flexible AC

Transmission System) transmission technology in service and LCRA has undertaken major transmission expansion responsibilities throughout the state of Texas.

Finally, particular attention should be given to the question of whether centralized operation by an RTO of a region's transmission grid may or impair grid security.

"Refund Authority"

LPPC opposes the continued inclusion of Section 1285 in energy legislation. During consideration of H.R. 6 by the House Energy Committee, there was debate over the manipulation of the western power markets. Allegations made against a few public power and cooperative entities resulted in the inclusion of a provision that expanded FERC jurisdiction over public power and cooperative utility "spot market" wholesale sales. The Senate energy bill did not include anything comparable. However, the H.R. 6 Conference Report did include a provision—one that gave FERC even broader authority to order refunds than was included in the House version of the bill. Unlike the earlier provision, Section 1285 ("Refund Authority") would only subject the largest municipal and other public power entities to FERC refund authority and it would apply to "short term sales"—wholesale power sales in interstate commerce for 31 days or less—that occur in violation of commission rules in effect at the time of the sale.

All but the largest public power systems (those selling more than 8 million MWH a year) and all cooperative utilities are exempt. TVA, BPA and the PMAs are subject to a lesser degree of regulation. As a result, the major burden of the provision would fall on 19 public power systems in the continental U.S. None of those systems has been found to have manipulated the wholesale power markets.

LPPC is opposed to the continued inclusion of this or any similar provision in energy legislation. The provision is unnecessary, unwarranted, and unfairly applied. FERC generally requires market participants to adhere to the rules of the wholesale market when making sales into such market—and that can include a contractual requirement to provide refunds in appropriate cases. We would urge Congress to take a hard look at both the underlying policy need for such a provision and at how FERC is exercising its current refund authority prior to granting additional authority.

Standard Market Design

During the consideration of energy legislation in the last Congress, FERC was considering a significant rulemaking initiative denominated as "Standard Market Design". The LPPC and many of its members filed comments on this proposal. Many of our members believe that SMD or similar concepts are unworkable, especially in the Western Interconnect and that such will merely impose significant new costs upon electric consumers without any corresponding benefit.

Transmission investment

Many LPPC members have built transmission systems to accommodate load growth. To the extent permissible under Federal tax laws (the "private use" rules), any excess is made available to the market. It is in our members' best interest to both build for load growth and to make excess transmission capacity available to the market place. Load-serving entities and their customers who prudently built transmission to accommodate future load growth should not be deprived of the benefit of that investment by having their future right to use that transmission taken away.

This Subcommittee has expressed an interest in encouraging investment in transmission facilities. Public power is part of the solution. LPPC member systems, such as Sacramento Municipal District (SMUD), the Lower Colorado River Authority (LCRA), Long Island Power Authority (LIPA), JEA, and the Salt River Project (SRP), have continued to invest in transmission upgrades and expansions. In some cases, we are building transmission for others. We will be happy to work with the Subcommittee to help develop a mechanism that makes sense, allows for planning, and facilitates reliable expansion.

Energy Conservation

LPPC supports increased funding for energy efficiency and conservation programs. In addition, low-income families spend a significant portion of their income on energy costs. Snohomish PUD and the other LPPC members are committed to providing our eligible low-income customers with the assistance they need and continue to strive for rates as low as possible so that our customers can have an easier time paying their utility bills.

BPA Authority

Mr. Chairman, I'd now like to address one other section of H.R. 6, speaking only on behalf of Snohomish County PUD and not on behalf of the Large Public Power Council. The general subject is the current Congressional authority that has been given to the federal power marketing agencies to operate the electric transmission grids in their regions of the country. As you may know, in some parts of the country, these federal power marketing agencies are the largest operator of electric transmission facilities in that region. That is certainly the case in the Pacific Northwest, where the Bonneville Power Administration owns and operates about 75 percent of the transmission facilities, or the grid as it is often called, in the entire region. My utility, Snohomish County PUD, is the largest purchaser of power from BPA and we are dependent on the BPA grid to get that power to our 300,000 homes and businesses we serve, including Boeing, Kimberly-Clark and Naval Station Everett, which is the homeport for the aircraft carrier Abraham Lincoln.

At the present time, the Bonneville Power Administration—and as far as I know, this applies to all the other power marketing agencies—has not been given Congressional authority to subdelegate its authority to run the grid to some other entity, and in particular to a Regional Transmission Organization.

Section 1234 of the H.R. 6 Conference Report, however, provides Congressional authorization for the Secretary of Energy or the heads of any of the federal power marketing agencies to subdelegate the existing authority of those power marketing administrations to operate the regional transmission grids as well as the control and use of all or part of its transmission system to Regional Transmission Organizations.

At least in the Pacific Northwest, this is very controversial and this subdelegation of authority to run the transmission grid is not supported by the large majority of BPA's customers. In fact, two weeks ago the regional trade association that represents the 115 publicly owned utilities that buy power and transmission services from BPA voted by a strong majority to oppose section 1234 or any similar provision in subsequent federal legislation. In the Pacific Northwest, the publicly owned utilities that serve approximately half the population of the region, are not convinced that a Regional Transmission Organization is in the best interests of the citizens. They may reach that view at some time in the future, but it will not be soon. So if Congress at this time grants this subdelegation of authority to control use and operate the transmission grid, it will be doing so against the wishes of most people in the Pacific Northwest.

Conclusion

In conclusion, I want to thank you for this opportunity to participate in the ongoing discussion on energy policy. LPPC and Snohomish PUD will continue to work with this Subcommittee and its members on these issues and appreciate your continued efforts on our behalf.

Mr. HALL. I would really like to talk to you a long time about those days when we tried to build a facility on Guaymas Island, and a young lawyer named John Ehrlichman filed an injunction from Seattle, there, and started a long friendship with him, up until his death. You are from a great part of the country.

Mr. HANSEN. Thank you.

Mr. HALL. We will recess until 2:45. I may be back before then, if I can.

[Brief recess.]

Mr. HALL. All right. We have all of the participants here, and the same group here from Congress. We have Mr. Kanner successfully strapped to an airplane out there headed West, and Glenn English, I think you are up next. I recognize you for as long as you want, as long as you don't want over 4 or 5 minutes, something like that. But if you do, we will make an exception.

Mr. ENGLISH. Well, thank you.

Mr. HALL. Go ahead, sir.

Mr. ENGLISH. Thank you very much, Mr. Chairman. I appreciate that, and also, I want to thank you for the very fine editorial you gave me at the beginning of this panel, and I want you to know it is already being printed up and sent out to all my membership. So that is very kind of you.

Mr. HALL. Are you going to run again?

STATEMENT OF GLENN ENGLISH

Mr. ENGLISH. I might run again. That is exactly right. Thank you very much. Mr. Chairman, I want to thank you for inviting me to testify. As you know, and for the record, I am Glenn English. I am the Chief Executive Officer of the National Rural Electric Cooperative Association.

We are a national service organization. We have over 900 consumer-owned electric cooperatives across this country, and we serve 37 million consumers in 47 States. The National Rural Electric Cooperative Association believes that the bulk electric transmission system is inadequate to handle the number of transactions that are occurring on it today. NRECA views the Energy Policy Act conference report as a compromise solution that should result in additions to the transmission system and increased grid reliability.

It is NRECA's understanding that except for the date and a few other changes, Mr. Boucher mentioned the cap, that this year's electricity provision of the energy bill is pretty much identical to that that was included in the H.R. 6 conference report, and NRECA supports and did support that conference report. And as long as there are no significant changes, NRECA will continue to support it, and will work toward its passage on the House floor, Mr. Chairman.

Mr. Chairman, the bulk of our testimony, however, discusses two issues in the bill that, should the committee decide it wanted to make some changes, would certainly support, and NRECA believes that that is consistent with the invitation that we received from the committee to make note of those.

The changes, if in fact the committee is going to make any changes in committee, are twofold. First, the Federal Energy Regulatory Commission should not be mandated to impose participant funding, as designated in section 1242. At the very least, the project costs should be assigned in a way that reflects all of those who are the beneficiaries. Now, FERC currently has the flexibility to do that, and we believe that that authority should be maintained.

No. 2, FERC should not be mandated to assign incentive rates for transmission. FERC currently has the flexibility to use incentive rates, as well as other choices, to tailor the proper rewards, and we believe that FERC should maintain that flexibility. However, Mr. Chairman, I do want to make it very clear that NRECA will support the H.R. 6 conference report as it came out of the conference, with no significant changes, and we continue to—in that position.

Mr. Chairman, in the interest of time, I think I will conclude my statement, and be prepared to answer any questions you might have for us. Thank you very much.

[The prepared statement of Glenn English follows:]

PREPARED STATEMENT OF GLENN ENGLISH, CHIEF EXECUTIVE OFFICER, NATIONAL RURAL ELECTRIC COOPERATIVE ASSOCIATION

INTRODUCTION

Mr. Chairman, and Members of the Committee, thank you for inviting me to testify. I am Glenn English, CEO of the National Rural Electric Cooperative Association, the national service organization of the nation's nearly 900 consumer-owned and operated electric cooperatives serving 37 million people in 47 states.

The National Rural Electric Cooperative Association (NRECA) believes the existing bulk electric transmission system is inadequate to handle the number of transactions that are occurring on it. NRECA views the Energy Policy Act Conference Report (H.R. 6) as a compromise solution that should result in additions to the transmission system and increased grid reliability.

It is NRECA's understanding that except for date and other minor changes, this year's energy bill will adopt the electricity title that was included in the H.R.6 Conference Report. NRECA supports the Conference Report. As long as there are no significant changes, NRECA continues to support it and will work towards its passage on the House floor.

Mr. Chairman, the bulk of our testimony discusses two issues in the bill that NRECA would support changes to if changes are to be made in the bill. NRECA believes that is consistent with the Committee's invitation to testify here today. However, I want to make it clear that NRECA will also support the H.R. 6 Conference Report with no changes.

If changes are made to the bill, NRECA supports two changes:

1. The Federal Energy Regulatory Commission (FERC) should not be mandated to impose participant funding as designed in Section 1242. At the very least, project costs should be assigned in a way that reflects who all of the beneficiaries are. FERC currently has the flexibility to do that, and that authority should be maintained.
2. FERC should not be mandated to assign incentive rates for transmission. FERC currently has the flexibility to use incentive rates as well as other choices to tailor the proper rewards. FERC should maintain that flexibility.

PARTICIPANT FUNDING; INCENTIVE RATES

Section 1242: Participant Funding

Section 1242 would require FERC to approve a transmission pricing plan based on one version of participant funding that is troubling to electric cooperatives. NRECA believes that this specific provision would allow public utilities that own transmission to single-out one electric utility, including a cooperative, to pay the significant costs associated with an upgrade of the transmission infrastructure even though all of the electric utilities as part of the regional network would share the benefits of such an upgrade.

This version of participant funding will very likely result in the assignment of project costs for competitive advantage and without connecting the costs to all of the beneficiaries and benefits. It will also provide an economic development advantage to high population density urban areas over low density rural areas. Except for extraordinary cases, transmission will not get built.

There is another version of participant funding that NRECA supports. Like many others, NRECA supports participant funding that allocates transmission costs consistent with all who benefit. Under this version of participant funding, those transmission facilities that would be required only for the operation of new generating facilities built to export power outside of the region where they are sited, those participants would bear the costs of the transmission required. That approach protects native load consumers in one region from paying for additional transmission facilities that provide them no benefit. If the new transmission facilities benefit a generator, or consumers in another region, the generator or the consumers in the other region should pay the costs of the transmission facilities.

Currently, FERC has the flexibility to determine the cost allocation approach that should be used. As a result, the cost allocation is generally aligned with the benefits that accrue from the transmission system upgrades. Where all of the electric utilities in a network benefit, FERC has approved cost allocation plans requiring all of the utilities to share in the costs associated with the particular upgrade. Conversely, where it is clear only one or two electric utilities benefit, FERC has approved cost allocation plans requiring only those utilities pay the costs associated with the particular upgrade. FERC should be allowed to continue to balance the costs with the benefits.

The participant funding mandate in Section 1242 will discourage the construction of much needed transmission facilities because it can allocate costs unfairly, and makes cost recovery extremely uncertain. Under a participant funding approach, investors receive no direct income from the use of their facilities. Instead, they receive "congestion revenue rights," or CRRs. CRRs, however, only entitle their holders to revenue in the event of congestion, which may be substantially reduced or even eliminated due to the construction of the expansion. An allocation of CRRs alone thus discourages investment in new facilities, or at the least creates a perverse incentive to undersize upgrades to maintain congestion on the system, since that is the only way they get paid.

Our approach is that the cost of any new transmission facilities required in a region to serve consumers in that region reliably or economically should be rolled into the cost of transmission in that region.

This is the best approach to encourage investment in needed transmission facilities. Rolling the costs of new transmission facilities determined by a regional plan to provide reliability or economic benefits to consumers in the region into the regional revenue requirement gives investors precisely the assurance they need that they will recover the costs of their investment as well as a reasonable rate of return.

Section 1241: Incentive Rates

NRECA believes FERC should continue to have the flexibility to either use or deny the use of incentive rates for transmission. NRECA believes higher rates of return should be a last resort, not a first resort. While the rate of return is important, the level of return required to attract capital investment is a product of the level of risk faced by investors: the lower the risk of ownership, the lower the rate of return required to attract investment. As noted previously, NRECA believes that FERC can best encourage the construction of new transmission facilities by providing investors with certainty that they will recover their costs. At the very least, FERC should be able to choose between higher rates of return or reduced risk of ownership or some combination of both as an incentive package for construction of new transmission.

Section 1236: Native Load

Mr. Chairman, within the last two years since you marked up H.R. 6, the electricity market has continued to evolve. Another transmission issue has emerged affecting many aspects of industry operations, including the diversity of fuel sources used for electric generation. Up until recently, the long-term transmission rights required to support new generation were a standard feature of all FERC tariffs. On the basis of those long-term rights, load-serving entities could and did make and finance long-term generation commitments with reasonable long-term delivered price certainty. Now in the transition to Regional Transmission Organizations (RTOs), no such rights are available because all of the focus at RTOs is on short-term spot markets. Simply put, spot markets will not get high fixed cost, power plants, with long construction lead times, built, particularly if no long-term transmission service is available.

None of the FERC-approved Regional Transmission Organizations (RTOs) today have any mechanism in place to allow utilities to secure long-term transmission rights for new power plants or power contracts. As a result, there is no way to obtain reasonable delivered price certainty. This is making construction of clean coal plants and wind generation by load-serving entities very risky, since the fixed costs of these plants are high and the savings is in lower energy costs over the life of the plant. What matters is the delivered energy cost to consumers. Without a long-term transmission right at reasonably certain rates, our consumer-owners face high risk that the delivered cost may be much higher than expected.

Long-term transmission rights assuring deliverability to load with reasonable price certainty is an essential ingredient to achieving fuel diversification. Like coal-fired generation, the other major fuel diversification alternatives—wind power and, potentially, new nuclear plants—need long-term transmission rights because they also are high fixed cost, low energy cost resources and will likely have to be located at a distance from population centers and so are very dependent on transmission.

Mr. Chairman, NRECA stands willing to join with you and others in the industry to find a vehicle to deal with this problem.

Mr. Chairman, thank you for this opportunity to present our views.

Mr. HALL. I do thank you, sir. Ms. Callahan.

STATEMENT OF KATERI CALLAHAN

Ms. CALLAHAN. Thank you, Mr. Chairman. My name is Kateri Callahan, and I serve as the President of the Alliance to Save Energy.

The Alliance to Save Energy is a nonprofit and bipartisan coalition of leaders from business, government, and industry, and Mr. Chairman, on behalf of our organization, we want to thank you for the leadership that you are providing as our new board member, and the leadership that we are getting from your colleague on the committee, Congressman Markey, in helping us to meet our mission, which is to promote energy efficiency worldwide for a cleaner environment, a more robust economy, and healthier energy security.

Energy efficiency is our country's greatest indigenous resource. Over the past 30 years, our studies show that energy efficiency and conservation are now displacing the need for 40 quads of energy each year. This means that energy efficiency is actually contributing more than coal, more than nuclear, and even more than petroleum to meeting this country's thirst for energy. Yet, it remains a resource that can deliver even more, and it can do so more quickly and more cheaply and more cleanly than any other supply, if we give it appropriate and meaningful public policy support. And it is for this reason that the Alliance strongly supports the energy efficiency provisions that are in H.R. 6, but at the same time, we urge you, Mr. Chairman, and your colleagues, to expand and enhance these provisions, so that the full potential of energy efficiency can be unleashed to lower demand and to extend our energy supplies.

The Federal programs and policies that were established by the Congress, like the appliance and motor vehicle standards, research and development, and the Energy Star program, have helped to make energy efficiency a key contributor to our Nation's economy. For example, every single Federal dollar that is invested in the Energy Star program is now returning $75 in consumer energy savings, and also, sparking $15 of private sector investment.

Over the past year, our organization has been exploring public policies that would deploy energy efficiency into every end use sector of the economy, as well as electricity and natural gas, to have a significant impact on the projected growth in energy demand between now and 2010. We have examined nearly 100 different policies and programs, and we have chosen those that are the most critical, but also, the ones we believe are the most politically saleable.

The Energy Information Administration is just now completing its analysis of these policies, and the findings suggest that taken together and if enacted, we might reduce the anticipated growth in energy demand between now and 2010 by up to 10 percent. The savings from our recommended package are even more impressive in the out years. By 2025, we estimate that the policies we are recommending could reduce the anticipated growth by 15 percent or more. Our policy recommendations are set out in detail in my written testimony, and they cover, I think this is very important, the energy efficiency provisions that are already in H.R. 6, but under our plan, those provisions would be enhanced and expanded.

For example, and very importantly, the committee's discussion draft would place crippling limitations on a very effective program. It is something called the ESPC, or the Energy Savings Performance Contract program, which facilitates energy efficiency upgrades to Federal buildings. This program is helping taxpayers to save a billion dollars each year in reduced Federal energy costs. It is a program that should be expanded, not constrained, as it is in the committee's current draft.

Our policy package also goes beyond the provisions in H.R. 6, and particularly, I would note that we would look to reform the current CAFE program, to assure that the fuel economy requirements that are in current law are being met by the automotive industry. We address the building sector through an innovative program that would assist States in putting in place the most aggressive and current energy efficiency standards, and finally, building code standards.

And finally, the gains in energy efficiency come largely from new technologies and improvement to existing technologies. Therefore, continuing and enhancing Federal programs, and supporting research, development, and deployment of energy-efficient technologies and practices, is a key component of our package.

Mr. Chairman, we believe we need to shed the cardigan sweater images of yesteryear, and get focused and serious about market-friendly ways to save energy. We need to no longer treat energy efficiency as the forgettable stepchild in the energy debate. Near-term and long-term energy efficiency has a proven track record as the most abundant, the least costly, and the most domestically secure way to address our energy needs. The Alliance believes we need to expand the use of this national resource through meaningful public policy, so that we can reap the full potential of its benefits.

Thank you.

[The prepared statement of Kateri Callahan follows:]

PREPARED STATEMENT OF KATERI CALLHAN, PRESIDENT, ALLIANCE TO SAVE ENERGY

Introduction

My name is Kateri Callahan and I serve as the President of the Alliance to Save Energy, a bipartisan, nonprofit coalition of more than 90 business, government, environmental and consumer leaders. The Alliance's mission is to promote energy efficiency worldwide to achieve a healthier economy, a cleaner environment, and greater energy security. The Alliance, founded in 1977 by Senators Charles Percy and Hubert Humphrey, currently enjoys the leadership of Senator Byron Dorgan as Chairman; Washington Gas Chairman and CEO James DeGraffenreidt, Jr. as Co-Chairman; and Representatives Ralph Hall, Zach Wamp and Ed Markey and Senators Bingaman, Collins and Jeffords as its Vice-Chairs. Attached are a list of the Alliance's Board of Directors and its Associate members, which I respectfully request be included in the record as part of this testimony.

Energy Efficiency: A Key Resource for a Sound National Energy Future

The Alliance to Save Energy believes that policies and programs to advance energy efficiency must be a central focus of any sound comprehensive national energy legislation. Energy efficiency now contributes more than any single energy resource to meeting the country's energy needs, and is the quickest, cheapest, and cleanest way to meet the anticipated growth in energy demand in the U.S.

The Alliance is developing a package of policy initiatives intended to assist the Nation in achieving significant energy savings through pursuit of widespread and aggressive energy efficiency programs. The proposed policy initiatives will be described in an upcoming Alliance report, "Vision 2010: An Energy Efficiency Policy

Prescription". The Alliance will quantify, to the greatest extent possible, the energy savings impacts of the various suggested policies.

Why an energy efficiency vision?

Both natural gas and oil prices have more than doubled in the last few years. In 1999, natural gas prices were $3.10 per thousand cubic feel (mcf); today they are averaging $6.40 per mcf. The latest numbers indicate that gasoline prices are approximately 17 percent higher than this time last year. High prices have caused plant closings, loss of manufacturing jobs, and a variety of other direct and negative impacts to the U.S. economy. In a recent survey, business leaders placed energy costs as their second greatest concern after rising healthcare costs.[1]

Energy efficiency and conservation measures taken since 1973 now displace the need for 40 Quads of energy each year, exceeding the nation's consumption of petroleum. Federal policies and programs such as appliance and motor vehicle standards, research and development, and Energy Star made major contributions to these savings.

Energy efficiency must play a central role in the nation's energy future. With only 2 percent of known world oil reserves within domestic borders, public opposition to increasing the generation of electricity from nuclear energy and coal, an electricity grid that is under significant and growing stress in many regions of the country, and only a modest though growing contribution from renewable energy resources, there is simply no choice. Even the National Petroleum Council has concluded that natural gas supplies from traditional North American production will not be able to meet projected demand, and that "greater energy efficiency and conservation are vital near-term and long-term mechanisms for moderating price levels and reducing volatility."

The potential to increase energy efficiency's contribution to meeting America's energy needs is significant. And for this reason, the Alliance to Save Energy strongly supports the energy efficiency provisions included in the conference report to H.R. 6, The Energy Policy Act of 2003 in recognition of the fact that these provisions will help our nation lessen its dependence on imported oil, protect the environment, and boost the economy. The Alliance does, however, believe that the energy efficiency provisions in H.R. 6 must be expanded and enhanced if we are to realize all of the potential gains that can accrue from widespread adoption of energy efficiency measures across many sectors of the economy.

Last year, the Alliance to Save Energy, in consultation with experts from industry, universities, government, and other public interest groups, initiated an examination of a wide array of energy efficiency policies directed at all energy end use sectors as well as electricity and natural gas. A priority purpose of the initiative was to identify a set of policies that would significantly reduce growth in US energy consumption by all sectors if enacted into law.

To guide our efforts, the Alliance established an achievable, but extremely aggressive energy growth reduction goal, and we also established a very short timeframe—five years—in which to achieve the reduction goal. The Energy Information Administration (EIA) has projected that energy use in the year 2010 will rise to 112 quadrillion Btus ("Quads"). The goal established by the Alliance was to reduce the projected level by 7 Quads, which represents a 50% reduction in anticipated growth over the five year period. In culling policies to those most critical and saleable, the energy savings of the package now being formulated under Vision 2010 likely will not meet the aggressive goal, though the savings will be significant. We recognize that 2010 is a very short time frame for policies to take effect—we expect that the policy package would have a much more robust impact on energy use in subsequent years.

To reach the target goal, we considered policies that could reduce energy use by approximately 5 percent in each end-use sector—residential and commercial buildings, industry, and transportation—and to reduce energy losses by 5 percent in electricity and natural gas transmission. Of the policies considered, some of the most significant savings are projected to result from cross-cutting policies that affect multiple sectors simultaneously.

Comparison of Energy Efficiency Policies in H.R. 6 Conference Report and Vision 2010

As stated above, the Alliance to Save Energy strongly supports the energy efficiency provisions in the conference report to H.R. 6, but believes that more can be done to improve energy efficiency in each of the following sectors: buildings, transportation, the electric and natural gas utilities, and the industrial sector. Listed below is a discussion of the specific energy efficiency provisions included in the H.R. 6 conference report, and actions the Alliance to Save Energy believes the federal government should take to further the efficiency gains in these sectors.

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[1] The October 2004 survey was developed by Robert Half Management Resources and conducted by an independent research firm. The survey includes responses from 1,400 CFOs from a stratified random sample of U.S. companies with more than 20 employees.

I. RESIDENTIAL AND COMMERCIAL BUILDINGS

Appliance and equipment standards

National appliance and equipment standards are an important and effective policy tool. They provide an efficiency baseline that American consumers can trust, provide uniform national rules for manufacturers, and slash wasteful energy consumption with one broad and effective stroke.

The federal appliance energy efficiency standards program began in 1987 and has been among the most effective of all efficiency measures. The program already has saved an estimated 2.5 percent of all U.S. electricity use representing billions of dollars of savings to America's consumers.

The conference report to H.R. 6 includes a package of new energy efficiency standards that were negotiated between energy efficiency interest groups, including the Alliance to Save Energy, and the manufacturers of products proposed for regulation. These provisions would establish standards in law for exit signs, torchiere lamps, dry-type transformers, traffic signal modules, unit heaters, and compact florescent lamps. They also require DOE to establish standards through rulemakings for ceiling fans, commercial refrigerators and freezers, vending machines, unit-heaters and batteries.

The Alliance to Save Energy believes these standards should be established, and broadened to include new agreements on commercial air conditioners, dehumidifiers, pre-rinse spray valves, ceiling fans, and commercial refrigerators and freezers.

In addition, the Alliance to Save Energy believes the U.S. Department of Energy should be encouraged to accelerate rulemakings that are years behind schedule. For example, the standard for residential furnaces was due in 1994. The most recent delay, announced in December, means that DOE will not set these standards until late 2007 at the earliest, and that the standards will not go into effect until at least 2010—fully 16 years beyond the statutory deadline. According to a September 2004 report published by the American Council for an Energy Efficient Economy, each year of delay in just three of these national standards—residential furnaces and boilers, distribution transformers, and commercial air conditioners and heat pumps—locks in $7.1 billion in higher energy costs for consumers and businesses.

In recognition of the fact that establishing standards requires a rigorous, time consuming, and costly rulemaking process, the Alliance also believes increased funding to the DOE standards program is critical to ensuring that the backlog in standards' rulemakings is placed on a fast track.

Energy Star

The Energy Star program represents one of the government's most successful efforts to date in advancing energy efficiency through market transformation. The Energy Star program is an entirely voluntary program that is yielding significant economic returns to our nation's consumers and significant environmental benefits to our nation as a whole. Studies estimate that every federal dollar spent on the Energy Star program results in an average savings of $75 or more in consumer energy bills; the reduction of about 3.7 tons of carbon dioxide emissions; and an investment of $15 in private sector capital in development of energy-efficient technologies and products.

The H.R. 6 conference report authorizes a voluntary Energy Star program at EPA and DOE and directs the Administrator and Energy Secretary to solicit comments of interested parties in establishing or revising an Energy Star product category; the provision requires a 9-month lead time before the implementation of any changes to the program.

The Alliance to Save Energy believes the eligibility requirements for becoming an Energy Star product should be updated to ensure that the market is encouraged toward the most efficient buildings and products. And, drawing on the success of the program, the Alliance believes that it should be expanded to cover more products and services. While not the jurisdiction of this Committee, the Alliance also believes that consumer tax incentives should be provided for products that go well beyond Energy Star levels and that funding for Energy Star is increased.

Building Codes

In a typical year, the United States builds about 1.7 million new housing units including single-family, multi-family and manufactured dwelling units. Buildi ergy codes are a means by which states and municipalities can assure that minimum levels of energy efficiency are achieved in these new buildings. The H.R. 6 conference report does not address the issue of building codes. The Alliance to Save Energy encourages the creation of a $25 million federal fund to support states in assuring adoption and compliance with the most current and aggressive building energy codes.

Manufactured housing ("mobile homes") represents one out of 7.5 new single-family housing starts and is not subject to local building codes. Manufacturers argue that they cross state lines and shouldn't be controlled by state and local building codes; thus they are instead regulated by the Department of Housing and Urban Development (HUD). Current HUD standards have been in place since 1996 and have not been updated since then. New proposed standards negotiated with industry through the National Fire Protection Association (NFPA-501), providing modest improvements, may be adopted by HUD in the next year or two. However, recent DOE research shows that it is cost effective to build manufactured housing to current IECC model energy code specifications, adapted to the three HUD climate zones. The Alliance to Save Energy recommends that manufactured housing be required to meet the current IECC model energy code, particularly as the market segment for this product tends to be modest-to-low income consumers who can ill-afford high energy bills. The Alliance encourages Congress to update the HUD manufactured housing standards to current IECC levels. These updates would reduce energy bills of mobile home owners by 9% and reduce overall energy use in mobile homes by 3 trillion btus in 2010, increasing to 8 trillion btus by 2025.

Federal Energy Management Program

America's largest, single energy consumer is the federal government. According to the 1998 Alliance to Save Energy report, *Leading by Example: Improving Energy Productivity in Federal Government Facilities,* the federal government wastes $1 billion in taxpayer dollars each year on its buildings that use energy inefficiently.

Few federal programs have been as cost-effective as the U.S. Department of Energy's Federal Energy Management Program (FEMP). At an average cost of $20 million per year, FEMP has helped cut federal building energy waste by nearly 21 percent from 1985-1999—a reduction that now saves federal taxpayers roughly $1 billion each year in reduced energy costs. However, much more can be done, and the Alliance supports the Federal Energy Management provisions of the H.R. 6 conference report to require further energy saving by the federal government.

A vital tool for upgrading the efficiency of the federal government is the use of Energy Savings Performance Contracts (ESPCs). This unique program allows federal agencies to contract with the private sector to upgrade the efficiency of federal buildings and pay-off the contract with the utility savings. The agency saves energy at no additional cost, the companies build their business and create jobs, and the government saves money and pollution. Unfortunately, this program sunset in 2003, and it must be permanently reauthorized immediately.

The Alliance to Save Energy is pleased that Congress provided an extension of the Energy Savings Performance Contract (ESPC) program until October 1, 2006 as part of the Defense Authorization bill (Public Law 108-375). And we support the permanent extension located in the Energy Policy Act of 2005. However, we are very concerned about the limitations placed on this program in the legislation. Capping this program at 60 projects and $300 million for DOD, VA, and DOE only will further harm the program that is just re-emerging from a costly delay in reauthorization. Due to this lapse in authority, nearly $500 million worth of energy savings projects were stalled—harming business around the country and wasting taxpayer dollars. This is a program that should be authorized permanently to assure stability in the industry and to give federal agencies the ability to continue to upgrade facilities to the benefit of taxpayers, our nation's environment and energy security.

Once reauthorized, the Alliance believes that the program should be expanded to allow for efficiency upgrades in the federal government's mobile assets—from planes, to tanks, to passenger vehicles. For example, expansion of the program could afford the military the ability to retrofit the B-52 Bomber (which currently relies on a 1960's-era engine) or the Abrams tank (which has a 1970's-era engine). In fact, a 2002 Defense Science Board report listed over 16 weapons systems that are candidates for such upgrades, covering every service and virtually every major defense contractor. While this expansion would save oil and advance national security goals, the first step is permanently reauthorizing the ESPC program.

Tax Incentives

Providing incentives to consumers and businesses is an important policy option that can help transform markets to embrace energy-efficient technologies and practices. The Alliance to Save Energy believes tax incentives are an important piece of any balanced energy plan, and we support the energy efficiency tax incentives that are part of the conference report to H.R. 6. This package of efficiency tax incentives represents a bipartisan compromise that would benefit businesses and consumers across the country, and we recommend passage of these important incentives as quickly as possible.

Tax incentives for highly efficient new homes will show home builders across the nation that incorporating energy-efficient technologies into homes is neither as difficult nor as expensive as they now contend. Tax credits for highly efficient refrigerators and clothes washers will encourage the manufacture and purchase of energy and water-saving appliances. The tax deduction for commercial buildings will give business owners the incentive to outfit their commercial space with energy-efficient equipment.

In addition, tax credits to upgrade the efficiency of existing homes will help everyday Americans cope with volatile natural gas and heating oil prices. These incentives, in addition to the incentives for highly efficient fuel cells, combined heat and power systems, and advanced electricity metering, can play an important role in helping this nation transition to energy efficient appliances and technologies.

II. ELECTRIC AND NATURAL GAS UTILITIES

Over the last two decades, states worked with regulated utilities using "Integrated Resource Planning" and demand-side management programs to avoid the need for about 100 300-Megawatt (MW) power plants. However, utility spending on public benefit programs nationwide was cut in half as states and the electricity industry prepared for expected deregulation. Two national policy strategies that could increase energy efficiency in the utility sector are: (1) a federal public benefits funds (PBFs); and, (2) a federal Energy Efficiency Performance Standards (EEPS). Neither of these two energy efficiency measures is included in the conference report to H.R. 6.

Energy Efficiency Performance Standards

Energy efficiency performance standards (EEPS) require retail electricity suppliers to meet customer needs in part through energy efficiency and load reduction programs rather than by constructing new generation and transmission facilities. EEPS can be instituted in conjunction with, or independent of, a national Public Benefits Fund (PBF).

While several states are considering creating EEPS, only two states—Texas and Pennsylvania—have instituted them in some form. If one were to follow the model signed by then-Governor Bush in Texas, electric and natural gas suppliers would be required to take measures to help their customers reduce consumption by a set amount each year. Utilities also could meet the requirement, in part, by reducing supply-side losses, could trade credits with other utilities, or could buy credits (the funds would be added to a public benefits fund). Savings due to lower energy use and lower prices should more than pay for the cost of the measures. For example, according to estimates by ACEEE, by 2020 a 1 percent federal EEPS would:

- Save over 340 billion kWh a year;
- Save consumers over $12 billion a year; and,
- Reduce peak electricity demand by about 68,000 MW (avoiding about 225 power plants).

Through Vision 2010, the Alliance has begun a dialogue between utilities that would be subject to any national policies on PBF or EEPs, government, academia and other stakeholders. Our goal is to develop, and present to the Congress in the coming weeks, recommendations for a workable, cost-effective program that recognizes and addresses the differences in the political and business circumstances of states.

Public Benefits Fund

Twenty-three states and the District of Columbia have created a guaranteed stream of funds for energy efficiency and other public goods via public benefit funds (PBFs). The funds are built typically from a small surcharge on electricity and natural gas bills. The programs may be administered by utilities, states, or independent organizations. Of the states that have passed restructuring laws and rules, all but two (Oklahoma, and Virginia) also have passed some form of PBF; in addition, three states (Minnesota, Vermont, and Wisconsin) have created PBFs without restructuring. Creation of a federal PBF that would provide matching funds to any state in which a PBF exists and/or would be accessible to any state with an EEPS in place could serve to encourage states to deploy such innovative techniques to advancing energy efficiency. A federal PBF could help stabilize electricity prices through reduced demand, reduce air pollution and greenhouse gas emissions, and ease the need for massive infrastructure replacement. By 2020, ACEEE estimates that a federal PBF would:

- Save 1.3 trillion kilowatt hours (kWh) a year;
- Reduce peak electricity demand by 160,000 MW (equivalent to about 500 power plants);
- Save consumers $68 billion (net after investments); and,
- Prevent greenhouse gas emissions equivalent to 96 million metric tons of carbon each year.

Transformers Tax Incentive

The energy bill conference report would provide accelerated, three-year depreciation for time-of-use meters. Time-of-use meters allow customers to shift their electricity use away from peak periods of the day when power is most expensive, which also can increase the efficiency of the power plant. In addition, the Alliance to Save Energy believes it is important to support accelerated depreciation for distribution transformers and new generation units that significantly exceed the efficiency of new transformer standards.

Voluntary Agreements

While the conference report to H.R. 6 authorizes DOE to enter into voluntary agreements with industrial companies for significant reductions in energy intensity, and to publicize the corresponding achievements, the conference report does not include a similar provision for the electric and natural gas utilities. The Alliance to Save Energy would encourage DOE and EPA to seek agreements from the entire industry to reduce fossil fuel heat rates and natural gas losses.

III. TRANSPORTATION

Today, more than two-thirds of the oil consumed in the United States is used for transportation. This sector accounts for the majority of CO and NO_X emissions in the U.S., and it is responsible for approximately 33% of U.S. greenhouse gas emissions. These realities, coupled with the fact that U.S. vehicle miles traveled are growing at a faster rate than vehicles and at more than twice the rate of the population, underscore the criticality of improving the efficiency of today's passenger cars and trucks immediately.

While the automotive industry has begun to introduce energy efficient transportation options, like hybrid electric vehicles, much, much more needs to be done to ensure that larger numbers of hybrids are introduced into the marketplace, and that consumers make the choice to purchase these and other energy efficient transportation technologies. Hybrids represent an immediate and more fuel efficient option for consumers of today and tomorrow, and they also can serve as a bridge to fuel cell electric vehicles of tomorrow that hold the promise of clean, sustainable mobility. Unfortunately, there are only five hybrid electric vehicle offerings to choose from in the marketplace and, while they are receiving growing attention by the media and the public, hybrids still represent less than one percent of the 17 million vehicles sold in the United States each year.

Furthermore, Corporate Average Fuel Economy (CAFE) standards have remained static for almost two decades due to political gridlock. The current standard of 27.5 miles per gallon for automobiles first applied in 1985, and the 21 mpg standard for light trucks is only 0.5 mpg above the 1987 standard (but is now set to rise to 22.2 mpg by 2007). In fact, lack of federal action, coupled with the dramatic expansion in sales of SUVs, has led to a significant drop in overall fuel economy. America's average gas mileage peaked in 1987-1988, declined for more than ten years, and is now flat.

Furthermore, and alarmingly, EIA estimates that on-road fuel economy is about 20% lower than test results used for CAFE standards. This means that consumers are receiving inaccurate information about what they might expect to realize in terms of the vehicle they purchase, and more importantly, the standards that have been set nationally—and not updated for 20 years—are not being met.

Close CAFE Loophole

Efforts in Congress to increase Corporate Average Fuel Economy (CAFE) standards for passenger vehicles have been unsuccessful since the mid-1980's. And, it appears unlikely that the 109th Congress will be the one to increase these standards. Notwithstanding this assumption, it is imperative to continue—and increase—efforts to improve the fuel economy of the vehicle fleet by reforming the current CAFE regulations through legislative and/or federal rulemakings. The fuel economy tests should be revised to better reflect real-world driving and to bring the estimates of fuel economy in line with EIA and other authoritative sources.

Second, passenger cars should be redefined to include SUVs and minivans, which are used for the same purposes, i.e. transporting people. Today, about half of all light-duty vehicles sold in America are light trucks, and most of these are SUVs and minivans. Including SUVs and minivans as passenger vehicles could increase fuel economy by 1 mpg, and save 5 billion gallons a year.

Third, the CAFE credit for "dual-fuel" vehicles, which can run on ethanol or on gasoline, should be ended or revised to require actual use of the alternative fuel. Today, dual fuel vehicles are being fueled almost exclusively—99% of the time—with gasoline. With only 188 ethanol fueling stations in 27 states, the infrastructure does not exist to supply these vehicles with alternative fuel. This credit has encouraged manufacturers to put millions of dual fuel vehicles on the road, but is also has allowed them to put more gas guzzlers on the road, and thus increase gasoline use. The credit should be terminated or modified to require actual use of the alternative fuel.

Finally, vehicles up to 10,000 pounds should be included in CAFE. CAFE standards only apply to vehicles up to 8,500 pounds (gross vehicle weight). In fact, EPA does not even test or report the fuel economy of larger vehicles, but their mileage is generally much lower. Manufacturers are selling more and more of these super-large SUVs and pickup trucks, such as GM Hummers and Ford Excursions. The weight limit should be raised to include these heavier vehicles.

Vehicle Fuel Use Feebate

The Alliance to Save Energy encourages the Congress to consider a new, innovative approach to efficiency of light-duty cars and trucks by promoting a national "feebate" system. Such a system could impose a national security surcharge, or "fee" on inefficient vehicles, and then use the funds collected to provide a "rebate" to the most fuel efficient vehicles. The fee or rebate on new vehicles could be based upon the expected lifetime fuel use of the vehicle. Rates could be set to be revenue neutral, but the public would know that when it makes a vehicle purchasing decision, a higher price premium will be realized for the less efficient vehicle options. Such a system would reward consumers who make the choice to purchase fuel efficient vehicles; individuals who purchase gas guzzlers will pay a premium for making this purchasing decision.

Tax Incentives

Hybrid electric vehicles still carry a price premium ranging from $3,000-$4,000 per vehicle. (Further, new models coming into the market could carry an even steeper price premium.) In order to assist consumers in making the choice to purchase these energy efficient transportation options, which represent less than 1 percent of the 17 million vehicles sold per year, the Alliance to Save Energy encourages the Congress to support consumer-based tax incentives for these energy efficient technologies. Such an incentive would "level the playing field" in the market place for hybrids, and allow consumers to make the choice to purchase a vehicle that will save them money over its lifetime without having to factor in purchase price differentials. The conference report to H.R. 6 provides a tax credit ranging from $250-$3400 for hybrid and lean burn diesel vehicles based on fuel economy and gas savings, and a larger credit for heavy-duty vehicles, capped for each manufacturer. The Alliance supports this approach and hopes that the Congress will devise a meaningful package of tax incentives that will support the building of a long-term and sustainable market for hybrid electric and other fuel-efficient vehicles.

In addition, Congress also should eliminate the business deduction for SUVs (which was reduced to $25,000 last year). A federal incentive for fuel-inefficient vehicles is counter-intuitive to our Nation's energy security and environmental goals, and also negates current positive purchase signals in the marketplace, including the so-called "gas guzzler's tax" and the tax deduction for hybrid and other alternative fuel vehicles.

Fleet Requirements

The conference report to H.R. 6 includes a variety of flexibility options to assist fleets in complying with the Alternative Fuel Vehicle (AFV) acquisition requirements of the Energy Policy Act of 1992 (P.L. 102-486 aka "EPAct"). In recognition of the fact that some fleets have had a difficult time meeting these requirements, and/or they would like to comply with technologies that currently are not an eligible compliance option (e.g., hybrid electric vehicles), the Alliance to Save Energy strongly supports the provisions that would allow hybrid electric vehicles and other energy efficient transportation technologies to be an eligible compliance option.

Industry

Industry accounts for one-third of all energy use in the U.S. Energy-intensive industrial plants typically have enormous energy bills, sometimes running into the millions of dollars annually. Energy efficiency improvements offer the potential for a significant return on investment for the industrial energy consumer in the form of lower utility bills. The energy bill conference report (H.R. 6) provided a 10% investment tax credit for combined heat and power systems up to 15 MW. The Alliance to Save Energy supports this tax credit, but would seek to include projects up to 50 MW.

The conference report also authorized DOE to enter into voluntary agreements with industrial companies for significant reductions in energy intensity. The Alliance supports this concept, but would broaden the program to include EPA involvement, and further, would define the program such that the voluntary agreements would seek to reduce energy intensity 2.5 percent each year from 2007-2016. Furthermore, the program should require independent verification of all reductions below "business-as-usual", as well as a report to Congress on assistance needed to help achieve the reductions.

Finally, the Alliance to Save Energy believes that medium and large businesses that emit at least 100,000 tons of CO2 in a year should be required to begin reporting these emissions to the government. This would allow the U.S. to establish a baseline for the sector, and to benchmark progress toward reducing CO2.

V. CROSS-CUTTING POLICY RECOMMENDATIONS

Funding Energy Efficiency

Funding for energy efficiency R&D and deployment programs of the Department of Energy and Environmental Protection Agency should be doubled from levels provided in 2004 in recognition of not only the enormous potential that energy efficiency offers in helping to meet the anticipated growth in energy use, but also the demonstrated return on investment that such funding has yielded the government and consumers alike.

The President's overall fiscal year 2006 budget request for DOE efficiency programs is $847 million, down $21 million from the FY 2005 appropriation, and $29 million from the Administration's FY 2005 request. This continues a gradual downward trend from $913 million appropriated in FY 2002. In addition to the overall decline, there were some major changes in priorities. The President has requested significant increases for fuel cell vehicles and for biorefineries. The money for these increases was taken from other energy efficiency programs—thus there are major cuts in core research, development and deployment programs in industrial energy efficiency, buildings efficiency, and other areas. Particularly distressing is a 19% cut to the appliance standards program despite worsening delays in meeting statutory deadlines, and a 21% cut in work to improve state building energy codes

CONCLUSION

American consumers need a balanced energy policy that takes aggressive steps to save energy wherever, and whenever, it is cost-effective and feasible. Energy efficiency is our largest energy resource, and it should be our first energy priority.

The policy options identified by the Alliance, such as standards, tax credits, and federal energy management, have been proven effective on the national level. Others, such as energy efficiency performance standards and public benefits funds, have been tested in the states and we believe are ready for replication at the national level. And finally, gains in energy efficiency come largely from new technologies and improvement to existing technologies; therefore, continuing and enhancing federal programs that support research, development and deployment of energy efficient technologies and practices is imperative.

The Alliance to Save Energy applauds the fact that this Committee is taking the first steps necessary to enacting meaningful and comprehensive energy legislation in the 109th Congress. With respect to energy efficiency provisions, which must be a cornerstone of any such energy legislation, we hope that last year's energy bill conference report, H.R. 6, represents only the starting point, and that the energy efficiency provisions will be expanded and enhanced to assure that we give the American people immediate, cost-effective and sustainable assistance in addressing spiraling energy costs and an ever-less secure energy future.

Mr. HALL. Thank you. You make a good case. Mr. Cooper, we recognize you, sir, for 5 minutes.

STATEMENT OF MARK N. COOPER

Mr. COOPER. Thank you, Mr. Chairman.

Energy security, reliability, price stability, environmental impacts, are all externalities of energy markets. It is difficult for individuals to reflect these considerations in their private actions, and difficult for their value to be captured in market transactions. In this sense, these characteristics of energy markets are public goods.

Moreover, much of the infrastructure of the energy industry, pipelines, transmission systems, and distribution networks, also have strong elements of natural monopolies. That is, there are not likely to be a sufficient quantity of redundant capacity to allow market forces to restrict or restrain the abuse of market power.

For these two reasons, the public requires policies to protect its interests. They cannot do so as individuals in these markets. Unfortunately, the legislation that has been bouncing around the Congress for the past couple of years fails to recognize these fundamentals of the energy industry. The legislation proposes to subsidize and encourage the wrong actors and actions, it proposes to relax the wrong regulations, or repeal the wrong statutes.

We look on the failure to pass energy legislation as a good thing for consumers and the nation, because it was bad legislation that would have made matters worse, by prolonging our dependence on fossil fuels, by delaying the start of a vigorous efficiency drive, and by failing to restore confidence in energy markets, which is critical for public consensus around some hard policy choices.

But time is wasting. It is very important for Congress to get its act together and pass good legislation that promotes and protects the public interest. So in the brief time I have allotted, let me focus on the specifics of what I think should be done in two general areas.

First, as I have suggested, markets must be free from manipulation. We believe that strong measures to ensure confidence in markets are critical to establishing the credibility of arguments for harder choices that must be made. Ensuring market transparency, promoting greater storage of petroleum products, could lower prices, reduce volatility, and above all, restore a consensus that we need to take more aggressive policies. In this vein, you should not repeal PUHCA. You should not allow the FERC to force utilities into spot markets in their transmission system. You should require every energy supplier to report audited price and storage data. You should pass a reliability bill.

Second, energy efficiency must be the central pillar of our energy policy in the years ahead. The domestic resource base is mature and declining. Increases in production cannot significantly reduce our dependence on imports, or affect world oil prices, and world energy prices. It cannot shift the international balance of power in energy power markets. Only by dramatically increasing the fuel efficiency of our vehicle fleet, buildings, equipment alliances, can we significantly affect the supply/demand balance at home and abroad. By establishing America as a focal point for an efficiency oriented industry, for our vehicles and appliances, we can drive the entire global industry onto a more efficient basis.

Let me keep it simple. Let us talk about a 20/20 program. In the next 2 decades, 20 years, we can easily double the fuel efficiency of our fleet, increasing its average by 20 miles per gallon. We can reduce expected natural gas consumption by another 20 percent. We can achieve a 20 percent share of renewables for our electricity generation. These three 20's, accomplished in 20 years, would have an immense impact on the supply/demand balance. It would reduce our consumption of petroleum by 4 million barrels a day. That is far more than we can get in the Alaska National Wildlife Reserve. It would save more than 6 trillion cubic feet of natural gas a day, more than we are going to get in the environmentally sensitive areas.

But we cannot get these if we do not start now and stay on this course. Nor does my emphasis on these first steps preclude a supply side solution. It is these first steps restoring confidence in markets, making a real commitment to effective conservation policy, efficiency policy, that should set the context for then having what we need to have, which is a good, hard, rational debate about which supply side options need to be pursued.

These two steps are the down payment, I believe, toward a consensus for a balanced national energy policy.

Thank you.

[The prepared statement of Mark N. Cooper follows:]

PREPARED STATEMENT OF MARK N. COOPER, ON BEHALF OF THE CONSUMER FEDERATION OF AMERICA AND CONSUMERS UNION

Mr. Chairman and Members of the Committee, my name is Dr. Mark Cooper. I am Director of Research for the Consumer Federation of America. I appreciate the opportunity to share the views of CFA and Consumers Union on energy policy. Over the past half-decade we have analyzed each of the major components of the consumer energy bill—gasoline, electricity and natural gas. I have attached copies of four major analyses.

A COMPREHENSIVE APPROACH TO POLICY EVALUATION

Our approach reflects a comprehensive evaluation of energy policies on both the supply and demand sides of the market and takes into account three broad areas of policy concern—economics, environment and security.

For the consumer, the primary considerations are economic, but environmental and security considerations must be taken into account. Economics includes both the basic benefit/cost of each option and the impact of the option on the market structure. We prefer policies that meet the need for energy at the lowest cost. We prefer policies that increase the supply and demand elasticities in the market or bring new sources and actors to the market to promote competition, since this not only lowers price but also dampens price volatility. While minimizing costs is a goal, it is paramount that policy choices produce outcomes that are economically acceptable. In choosing between economically acceptable outcomes, policies that lower environmental costs and/or security concerns should be preferred.

Environmental concerns are extremely important because energy production and consumption involve major externalities—costs that are not easily reflected in market transactions. Production, transportation and distribution have environmental impacts, as does consumption. An alternative that saves on this infrastructure should be preferred.Security of supply has traditionally focused on the operation of facilities to prevent accidents. Operating pipelines or transmission systems, terminals, drilling rigs and distribution systems are complex and difficult activities. They are subject to accidents and disruptions from weather and other problems. Under current conditions, however, vulnerability to intentional acts of sabotage must be considered. Moreover, because international energy markets are dominated by cartels and producers with market power, any policy that relies on foreign resources must also be assessed in terms of the dependability of supply.

CRITICAL STEPS FOR AN EFFECTIVE POLICY

We conclude that there are two critical first steps to establishing a balanced energy policy.

First, markets must be free of manipulation. We believe that strong measures to ensure confidence in markets are critical to establish the credibility of arguments for other policies. Ensuring market transparency and promoting greater storage could lower prices and reduce volatility, but, above all, they would establish a prerequisite necessary for other policies—confidence that there is a "hard" problem in the imbalance of supply and demand.

Second, improvement in energy efficiency must be the central pillar of our energy policy. The domestic resource base is mature and declining. Increases in production cannot significantly reduce our dependence on imports or affect world markets. Only by dramatically increasing the fuel efficiency or our vehicle fleet, buildings, equipment and appliances, can we significantly affect the supply-demand balance and alleviate pressures on markets. Efficiency has a positive impact on every one of the evaluation criteria. Its potential to lower prices has been noted. Efficiency has obvious environmental benefits by reducing the need for facilities and the consumption of fossil fuels. To the extent that it reduces the need for resources, it improves security. It could have market structural benefits, if demand is reduced sufficiently to shift the market equilibrium to a more elastic region of the supply curve.

PETROLEUM PRODUCTS

If the U.S. is to both reduce the market power of energy producers and stem the flow of imports, public policy must start immediately and aggressively on an efficiency path to lower energy consumption. It is time for public policy to seek permanent institutional changes that both reduce the chances that markets will be tight and reduce the exposure of consumers to the opportunistic exploitation of markets when they become tight. To achieve this reduction of risk, public policy should be focused on achieving four primary goals:

- Restore reserve margins by developing both efficiency (demand-side) and expanding refinery capacity (supply-side).
- Increase market flexibility through stock and storage policy.
- Discourage private actions that make markets tight and/or exploit market disruptions by countering the tendency to profiteer by withholding of supply.
- Promote a more competitive industry.

Demand Side

A goal of achieving an improvement of vehicle efficiency (increase in fleet average miles per gallon) equal to economy-wide productivity over the past decade (when the fleet failed to progress) would have a major impact on demand. It would require the fleet average to improve at the same rate it did in the 1980s. It would raise average fuel efficiency by five miles per gallon, or 20 percent. This is a mid-term target. This rate of improvement should be sustainable for several decades. This would reduce demand by 1.5 million barrels per day within a decade. This would return consumption to the level of the mid-1980s.

Expanding refinery capacity by 10 percent equals approximately 1.5 million barrels per day. This would require 15 refineries, if the average size equals the refineries currently in use. This is less than one-third the number shut down in the past ten years and less than onequarter of the number shut down in the past fifteen years. Alternatively, a ten percent increase in the size of existing refineries, which is the rate at which they increased over the 1990s, would do the trick, as long as no additional refineries were shut down. Placed in the context of redevelopment of recently abandoned facilities or expansion of existing facilities, the task of adding refinery capacity does not appear daunting. Such an expansion of capacity has not been in the interest of the businesses making the capacity decisions. Therefore, public policies to identify sites, study why so many facilities have been shut down, and establish programs to expand capacity should be pursued.

Reducing demand for natural gas by about one quarter of the base level projection could be achieved with the implementations of three broad categories of policies—building codes, appliance standards, and industrial use—that essentially accelerate the adoption of currently available best practices or readily achievable savings with off-the-shelf technologies. The potential savings over a longer period are higher. The key challenge is to move higher efficiency products and practices into widespread use. Standards, incentives and education programs are the vehicles to do so. These discussions do not include the impact of a renewable portfolio standard, which could have a large effect on the electric utility sector. Although several states have recently adopted significant renewable standards, 10 to 20 [illegible], the fe[illegible]al government has not.

Stock Policy

It has become more and more evident that private decisions on the holding of stocks will maximize short-term private profits to the detriment of the public. Increasing concentration and inadequate competition allow stocks to be drawn down to levels that send markets into price spirals. Companies will not willingly hold excess capacity for the express purpose of preventing price increases. They will only do so if they fear that a lack of supply or an increase in brand price would cause them to lose business to competitors who have available stocks. Regional gasoline markets appear to lack sufficient competition to discipline anti-consumer private stock policies.

Public policy must expand stocks. Participants in the distribution of petroleum products could be required to hold stocks at a percentage of retail sales. Public policy could also either directly support or give incentives for private parties to keep storage. It could lower the cost of storage through tax incentives by drawing down stocks during seasonal peaks. Finally, public policy could directly underwrite stockpiles.

Market Manipulation

In the short term, government must turn the spotlight on business decisions that make markets tight or exploit them.

Withholding of supply should draw immediate and intense public scrutiny, backed up with investigations. Since the federal government is likely to be subject to political pressures not to take action, state governments should be authorized and supported in market monitoring efforts. An ongoing joint task force of federal and state attorneys general could be established. The task force should develop databases and information to analyze the structure, conduct and performance of gasoline markets.

As long as huge windfall profits can be made, private sector market participants will have a strong incentive to keep markets tight. Market manipulation could and should be made illegal. The pattern of repeated price spikes and volatility has now become an enduring problem. Because the elasticity of demand is so low—because gasoline is so important to economic and social life—this type of profiteering should be discouraged. A windfall profits tax that kicks in under specific circumstances will take the fun and profit out of market manipulation.

Further concentration of these industries is quite problematic. The Department of Justice *Merger Guidelines* should be rigorously enforced. Moreover, the efficiency defense of consolidation should be looked on skeptically, since inadequate capacity is a market problem.

ELECTRICITY

Policy makers could have eased the transition to competitive generation markets by recognizing the physical and institutional infrastructure that would be needed to support greater competition, but they did not. Perhaps they realized that presenting a true picture of the difficulty of electricity deregulation would have made it impossible to sell it to the public. Whatever the reason behind the underestimation of the difficulties of deregulation, the buildup of problems now makes the implementation of competition a much riskier proposition. Not only has the inadequacy of institutions and facilities grown, but also public confidence in the process has been eroded.

The nation is now deeply divided between about one-third of the states—primarily in the Midwest, Northeast and Mid-Atlantic—that have deregulated and restructured their electric utility sectors, and two-thirds that have not. Although there are a host of complex reasons behind this division, one cannot help but observe that, on average, those areas of the nation that remain fully regulated have substantially lower prices and more reliable service. Effective management of the grid does not require deregulation of either generation or transmission; on the contrary it is made more difficult by deregulation.

For the past decade, policy makers and regulators in Washington, D.C., and the Northeast have spent a lot of time trying to make the new electricity markets work. At the same time, they have neglected to upgrade and maintain a reliable electricity transport system. Congress and the FERC should devote all of their energy to studying, strengthening and managing the interstate transmission system—to promoting the public interest, not the profits of merchant generators and transmission owners.

Congress should pare back electricity legislation to a reliability-only title. Both the physical and institutional infrastructure of the industry needs careful study and consideration. It should not repeal the Public Utility Holding Company Act and require the FERC to abandon its Standard Market Design.

The Public Utility Holding Company Act (PUHCA) once was one of the main lines of defense against abuse of electricity and natural gas ratepayers. PUHCA was designed to simplify the ownership structure of electric utilities by ensuring a direct operational or functional relationship between subsidiaries of a holding company, and reduce conflicts of interest between the subsidiaries of vertically integrated multi-state utilities by examining accounting practices and reviewing affiliate transactions. Unfortunately, in recent years regulatory authorities have ceased to implement the law vigorously. Many consumer advocates believe that if the protections in PUHCA had been effectively enforced, the horrendous abuses in the Western power markets could have been avoided and *Standard and Poor's* recently concluded that PUHCA protects investors as well. Ironically, long after the Western electricity scandal broke, Enron's PUHCA exemption was revoked. Rather than repeal PUHCA, as contemplated in recent legislation, Congress should demand effective implementation of its provisions.

Congress should require a comprehensive survey of the national grid, since such a survey has not been conducted in forty years. It should identify the upgrades that are necessary for reliability and those whose primary purpose is to expand transactions. It should study the question of how best to establish standards and regulatory oversight over privately owned transmission lines. Voluntary self-regulation has been uneven and inadequate. Mandatory self-regulation is little better. More public oversight is necessary.

Congress should examine new institutions that can reconcile the interests of the states and include representation of consumer interests. FERC's proposal for regional, quasivoluntary institutions of nebulous authority and ill-defined rights and responsibilities is not a solution.

Congress should require a framework for comprehensive planning that considers all alternatives. It should get serious about energy efficiency, like mandating higher minimum standards for air conditioners, which would reduce the demands on the grid at its most vulnerable times, hot summer days. It could also give a boost to local (distributed) generation, which has the double benefit of adding generation resources to the system while not using the long distance transmission lines, whose failure triggered the recent black out.

Mr. HALL. Thank you, sir. Mr. Nadel.

STATEMENT OF STEVEN NADEL

Mr. NADEL. Okay. Thank you very much, Mr. Chairman. Mr. Boucher. I appreciate the opportunity to testify here today.

My name is Steven Nadel, and I am the Executive Director of the American Council for an Energy-Efficient Economy. We are a locally based think tank that has conducted research over the past 25 years on programs and policies to improve energy efficiency.

As several witnesses have noted before, energy efficiency is an important cornerstone for America's energy policy. The U.S. has greatly increased energy efficiency in the past 3 decades, but much more is possible and needed. The draft Energy Policy Act of 2005 contains a number of useful provisions to promote energy efficiency, and we support these provisions, but these sections should also be expanded. Efficiency sections in the bill should be expanded for at least 5 reasons.

First, energy efficiency saves consumers and businesses money. Using EIA data, we estimate that past efficiency actions saved U.S. consumers and businesses about $650 billion in 2003. That is a billion. Our analysis indicates that these savings can be increased by at least an additional $100 to $200 billion annually by 2020, even if energy prices remain unchanged.

Second, energy efficiency can change the energy supply d -
mand balance, and put downward pressure on e
you are all too aware, natural gas prices in
quite high. The markets are quite tight. The n
though, that if we can moderate demand

using the same computer models that DOE uses, indicates that with 4 to 5 percent energy savings, we can reduce these prices over the next decade by 20 percent or more. It is just very tight markets.

Third, energy efficiency can reduce reliance on imported oil. As EIA pointed out earlier, we now import about 60 percent of our oil, and they project it will increase to about 70 percent by 2020. While some new oil is available in hard to reach areas of the U.S., even more oil is available by promoting energy efficiency. Some forthcoming analyses we are working on estimate that we can reduce U.S. oil use by more than 2.5 million barrels per day in 2020 through energy efficiency. And this means improvements in the transportation sector, but also in industry, homes, and commercial buildings.

Fourth, energy efficiency can help our economy. Since investments in efficiency generates jobs, and also energy bill savings free up money for more productive uses.

And fifth, energy efficiency is a highly cost-effective way to reduce carbon dioxide emissions. While there is debate about how quickly we should do this, I think everyone agrees that whatever we can do would be useful. Efficiency can be a frontline in that fight.

The provisions in the draft Energy Policy Act of 2005 do take some useful steps to address natural gas and electricity use, and we applaud you for that. Unfortunately, they don't do very much to stem oil use, and we think that is an area that particularly needs attention.

Among the notable provisions in the bill are the consensus efficiency standards that this committee has been working on since 2001, and we very much thank you for your help with that. There are also some very useful sections enhancing the Federal appliance labeling program, the Federal energy management program, and also programs to get voluntary efficiency improvements from industrial firms. All of these are good provisions. But we recommend that additional provisions be considered, either as part of a markup, or as part of a conference, depending on how you proceed.

I have 5 specific recommendations. One, there are additional energy efficiency standards that we have consensus with industry on, and we recommend that those be added to the bill. These are consensus agreements that were reached since the conference committee met in 2003.

Two, we recommend that the bill clarify that DOE, as part of its efficiency standards program, can set separate furnace efficiency standards for cold and warm States. Presently, they use a one size fits all, the same standard in Florida and Alaska, which really limits their ability to save gas. We think by considering two standards, there will be much more opportunity for gas savings, but also for proper economics in different regions of the country, rather than a one size fits all. We are not recommending you set two standards, but give DOE the right to set those standards, and they can carefully balance the different factors involved.

Three, we recommend that you include an energy efficiency resource standard to set energy saving targets for gas and electric utilities, modeled after legislation in Texas that was signed by then

Governor Bush. Texas has been a leader in this, and we think the U.S. Congress should follow suit.

Fourth, we think something should be done about oil. We recognize this is a contentious issue. We recommend setting a fuel savings goal of 1 million barrels of oil per day savings by 2013, and leave it to the administration to develop a plan to meet that. There are many tools available in industry, in buildings, in transportation. As part of this, we recommend that you authorize some additional tools, things like feebates, which are revenue-neutral fees and rebates based on fuel economy, also allowing the Department of Transportation to adjust the test procedures for vehicles, to better reflect real world performance, and instituting test procedures for heavy vehicles, so we can start measuring their fuel economy. These are the kinds of the arrows that should be in their quiver as they try to develop a plan to achieve that 1 million barrels per day savings.

Fifth, we recommend that the bill address barriers to combined heat and power systems, by directing FERC and EPA to complete current proceedings on interconnection and output-based emissions standards. And then, we also recommend some tax incentive improvements which I recommend. I understand they are not in the jurisdiction of this committee.

Our analysis indicates that the provisions now in the Energy Policy Act of 2005 would reduce U.S. energy use by about 3 percent in 2020. That is useful and helpful. But if you adopt these 5 other additional recommendations we have, we think the savings in 2020 would increase to about 12 percent, in other words, a fourfold increase. These are highly cost-effective savings. So we strongly urge you to consider these changes, and hopefully include many of them in the bill.

Thank you very much.

[The prepared statement of Steven Nadel follows:]

PREPARED STATEMENT OF STEVEN NADEL, EXECUTIVE DIRECTOR, AMERICAN COUNCIL FOR AN ENERGY-EFFICIENT ECONOMY (ACEEE)

INTRODUCTION

ACEEE is a nonprofit organization dedicated to increasing energy efficiency as a means for promoting both economic prosperity and environmental protection. We were founded in 1980 and have contributed in key ways to energy legislation adopted during the past 20 years, including the Energy Policy Act of 1992 and the National Appliance Energy Conservation Act of 1987. I appreciate the opportunity to appear again before this Committee.

Energy efficiency improvement has contributed a great deal to our nation's economic growth and increased standard of living over the past 30 years. Energy efficiency improvements since 1973 accounted for approximately 50 quadrillion Btu's in 2003, which is *more than half of U.S. energy use and nearly as much energy as we now get annually from domestic coal, natural gas, and oil sources combined.* Thus, energy efficiency ran rightfully be called our country's largest energy source. Consider these facts which are based primarily on data published by the federal Energy Information Administration (EIA):

- Total primary energy use per capita in the United States in 2003 was down slightly relative to 1973. Over the same 30-year period, economic output (GDP) per capita increased 74 percent.
- National energy intensity (energy use per unit of GDP) fell 46 percent between 1973 and 2003. About 60% of this decline is attributable to real energy effi-

ciency improvements and about 40% is due to structural changes in the economy and fuel switching.[1]

- If the United States had not dramatically reduced its energy intensity over the past 30 years, consumers and businesses would have spent about $650 billion more on energy purchases in 2003.
- Between 1996 and 2003, GDP increased 25 percent while primary energy use increased just 5 percent. Imagine how much worse our energy problems would be today if energy use had increased 10 or 20 percent during 1996-2003.

Even though the United States is much more energy-efficient today than it was 30 years ago, there is still enormous potential for additional cost-effective energy savings. Some newer energy efficiency measures have barely begun to be adopted. Other efficiency measures could be developed and commercialized in coming years, with proper support:

- The Department of Energy's national laboratories estimate that increasing energy efficiency throughout the economy could cut national energy use by 10 percent or more in 2010 and about 20 percent in 2020, with net economic benefits for consumers and businesses.[2]
- ACEEE, in our *Smart Energy Policies* report, estimates that adopting a comprehensive set of policies for advancing energy efficiency could lower national energy use from EIA projections by as much as 11 percent in 2010 and 26 percent in 2020.[3]
- ACEEE and others estimate that passenger vehicle fuel economy could be raised by two-thirds with existing cost-effective technologies. Yet the fuel economy of U.S. vehicles today is the same as it was in 1982.[4]
- The opportunity for saving energy is also illustrated by experience in California in 2001. Prior to 2001 California was already one of the most-efficient states in terms of energy use per unit gross state product (ranking 5th in 1997 out of 50 states[5]). But in response to pressing electricity problems, California homeowners and businesses reduced energy use by 6.7% in summer 2001 relative to the year before (after adjusting for economic growth and weather)[6], with savings costing an average of 3 cents per kWh,[7] far less than the typical retail or even wholesale price of electricity.

Unfortunately, a variety of market barriers keep these savings from being implemented. These barriers are many-fold and include such factors as (split incentives—(landlords and builders often do not make efficiency investments because the benefits of lower energy bills are received by tenants and homebuyers); panic purchases (when a product such as a refrigerator needs replacement, there often isn't time to research energy-saving options); and bundling of energy-saving features with high-cost extra (bells and whistles.)

Furthermore, recent developments indicate that the U.S. needs to accelerate efforts to implement energy efficiency improvements:

- Oil, gasoline and natural gas prices have risen substantially in the past couple of years. Energy efficiency can reduce demand for these fuels, reducing upward price pressure and also reducing fuel-price volatility, making it easier for businesses to plan their investments. Prices are determined by the interaction of supply and demand—if we seek to address supply and not demand, it's like entering a boxing match with one hand tied behind our back.
- A recent ACEEE analysis found that gas markets are so tight that if we can reduce gas demand by as little as 4% over the next five years, we can reduce wholesale natural gas prices more than 20%. This analysis was conducted by Energy and Economic Analysis, the same analysis firm and computer model

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[1] Murtishaw and Schipper, 2001, Untangling Recent Trends in U.S. Energy Use. Washington, D.C.: U.S. Environmental Protection Agency.

[2] Interlaboratory Working Group, 2000, *Scenarios for a Clean Energy Future.* Washington, D.C.: Interlaboratory Working Group on Energy-Efficient and Clean-Energy Technologies, U.S. Department of Energy, Office of Energy Efficiency and Renewable Energy.

[3] Nadel and Geller, 2001, *Smart Energy Policies: Saving Money and Reducing Pollutant Emissions Through Greater Energy Efficiency*, www.aceee.org/energy/reports.htm. Washington, DC: American Council for an Energy-Efficient Economy.

[4] DeCicco, An and Ross, 2001, *Technical Options for Improving the Fuel Economy of U.S. Cars and Light Trucks by 2010-2015.* Washington, DC: American Council for an Energy-Efficient Economy.

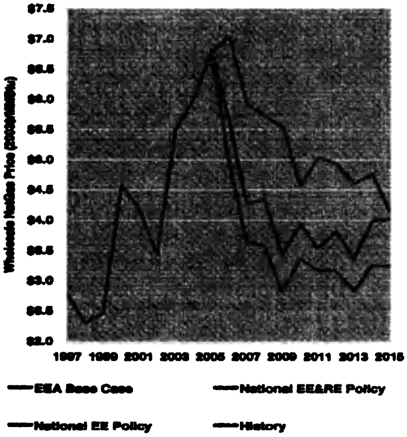
[5] Geller and Kubo, 2000, *National and State Energy Use and Carbon Emissions Trends.* Washington, DC: American Council for an Energy-Efficient Economy.

[6] California Energy Commission, 2001, *Emergency Conservation and Supply Response 2001.* Report P700-01-005F. Sacramento, CA.

[7] Global Energy Partners, 2003, *California Summary Study of 2001 Energy Efficiency Programs, Final Report.* Lafayette, CA.

that was employed by DOE and the National Petroleum Council for their 2003 study on U.S. natural gas markets. Results of this analysis are shown in the figure below. These savings would put over $100 billion back into the U.S. economy. Moreover, this investment would help bring back U.S. manufacturing jobs that have been lost to high gas prices, and would help relieve the crushing burden of natural gas costs experienced by many households, including low-income households. Importantly, much of the gas savings in this analysis comes from electricity efficiency measures, because so much electricity is generated by natural gas, often inefficiently.

Impacts of Energy Efficiency and Renewable Energy on Wholesale Gas Prices



- The U.S. is growing increasingly dependent on imported oil, with imports accounting for more than 60% of U.S. oil consumption in 2003, of which nearly half came from OPEC countries and more than 20% came from the Persian Gulf.[8] The U.S. Energy Information Administration estimates that imports will account for 72% of U.S. oil use in 2020 unless current trends are changed. While moderate amounts of new oil are available in hard-to-reach areas of the U.S., much greater amounts of oil are available by increasing the efficiency with which we use oil. Forthcoming analyses by ACEEE and others estimate we can reduce U.S. oil use by more than 2.5 million barrels per day by 2020 through improvements in the residential, commercial, industrial and transportation sectors (the latter including passenger cars, light and heavy trucks, and planes). Energy efficiency can slow the growth in oil use, allowing a larger portion of our needs to be met from sources in the U.S. and neighboring friendly countries.
- The U.S. economy has had sub-par performance for several years. While the economy is improving, additional boosts will help. Energy efficiency investments often have financial returns of 30% or more, helping to reduce operating costs and improve profitability. In addition, by reducing operating costs, efficiency investments free up funds to spend on other goods and services, creating what economists call the (multiplier effect), and helping the economy broadly. A 1997 study found that due to this effect, an aggressive set of efficiency policies could add about 770,000 jobs to the U.S. economy by 2010.[9]
- Emissions of gases contributing to global climate change continue to increase. Early signs of the impact of these changes are becoming apparent in Alaska. Energy efficiency is the most cost-effective way to reduce these emissions, as efficiency investments generally pay for themselves with energy savings, providing no-cost emissions reductions.

Energy efficiency also draws broad popular support. For example, in a May 2001 Gallop Poll, 47% of respondents said the U.S. should emphasize "more conservation" versus only 35% who said we should emphasize production "an additional 14% volunteered 'both'". In this same poll, when read a list of 11 actions to deal with the energy situation, the top four actions "supported by 85-91% of respondents" were "invest in new sources of energy," "mandate more energy-efficient appliances,"

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[8] Energy Information Administration, 2004, *Annual Energy Review 2004 and Annual Energy Review 2005, Early Release*. Washington, DC: U.S. Dept. of Energy.

[9] Alliance to Save Energy et al., 1997, *Energy Innovations: A Prosperous Path to a Clean Environment*. Washington, DC: American Council for an Energy-Efficient Economy.

"mandate more energy-efficient new buildings," and "mandate more energy-efficient cars." Options for increasing energy supply and delivery generally received significantly less support.[10]

Furthermore, increasing energy efficiency does not present a trade-off between enhancing national security and energy reliability on the one hand and protecting the environment on the other, as do a number of energy supply options. Increasing energy efficiency is a "win-win" strategy from the perspective of economic growth, national security, reliability, and environmental protection.

We are not saying that energy efficiency alone will solve our energy problems. Even with aggressive actions to promote energy efficiency, U.S. energy consumption is likely to rise for more than a decade, and this growth, combined with retirements of some aging facilities, will mean that some new energy supplies and energy infrastructure will be needed. But aggressive steps to promote energy efficiency will substantially cut our energy supply and energy infrastructure problems, reducing the economic cost, political controversy, and environmental impact of energy supply enhancements.

COMMENTS ON THE ENERGY POLICY ACT OF 2005

The provisions in the draft Energy Policy Act of 2005 (which we assume are virtually identical to the H.R. 6 Conference Language from 2003) take moderate steps to address natural gas and electricity use but do very little to stem oil use. Notable efficiency provisions in this Act include:

1. Enactment of Consensus Equipment Efficiency Standards on Six Products plus DOE Rulemakings to set Efficiency Standards on Six More Products

These standards were negotiated by ACEEE and industry over the 2001-2003 period and draw broad support. In cases where there was clear consensus on what the new standard should be, the specific standard is included in the bill. Placing these standards in the bill speeds up implementation (saving the three or more years for a typical DOE rulemaking) and also provides clear direction for manufacturers on the products they need to produce (with a rulemaking, manufacturers face uncertainty until a final rule is published). In cases where such consensus was lacking, the bill directs DOE to set standards by rule. In a few cases the standards established by H.R. 6 were due to take effect in 2005. These dates need to be pushed back to January 1, 2006. Overall, we estimate that these standards will have a benefit-cost ratio of about six to one (energy bill savings will be about six times greater than the incremental cost of the more efficient equipment).[11]

2. Tax Incentives for Advanced Energy-Saving Products and Buildings

The H.R. 6 Conference agreement includes tax incentives for combined heat and power systems, advanced appliances, hybrid, fuel cell and advanced diesel vehicles, and efficient new and existing homes and commercial buildings. These provisions will expand use of these energy-saving technologies and building practices, helping these technologies and practices to become more established in the market so they can better prosper when the tax incentives end. We see these as a temporary "shot in the arm" for these technologies, and not a permanent entitlement. In 2003 we estimated that these tax incentives will save about 19 quadrillion Btu's of energy over the 2004-2020 period, about 1% of U.S. energy use. By our estimates, the tax incentives account for about two-thirds of the energy savings achieved under the bill. We are now preparing updated estimates and expect to have these available in about a month.

3. Enhancements to the Appliance Labeling Program, Federal Energy Management Program and Programs that Seek Voluntary Efficiency Commitments from Industrial Firms

This bill also includes several other useful efficiency provisions. For example, Section 134 directs the Federal Trade Commission to review and improve the Energy Guide label that now is displayed on many types of appliances. The current label is ineffective at educating and motivating consumers and needs updating. ACEEE focus group and survey research has found that an improved label would be easier to understand and would motivate more consumers to purchase high-efficiency appliances.

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[10] Moore, David, 2001, "Energy Crisis: Americans Lean toward Conservation over Production." Princeton, N.J.: The Gallup Organization.

[11] Kubo and Nadel, 2001, *Opportunities for New Appliance and Equipment Efficiency Standards: Energy and Economic Savings Beyond Current Standards Programs.* Washington, DC: American Council for an Energy-Efficient Economy.

Subtitle A addresses Federal Leadership in Energy Conservation. It is important for the federal government to continue to lead the nation in energy efficiency by setting an example of energy use in its own buildings. Few federal programs have been as cost-effective as DOE's Federal Energy Management Program (FEMP). At an average cost of only $20 million per year, FEMP has cut federal building energy use by more than 20% over the past two decades—a reduction that now saves federal taxpayers roughly $1 billion each year in reduced energy costs. Subtitle A updates and strengthens FEMP efforts by: (1) updating agency energy reduction targets; (2) extending and expanding Energy Savings Performance Contract (ESPC) authority; (3) requiring cost-effective metering; (4) increasing performance standards for new federal buildings; (5) strengthening federal procurement requirements; and (6) increasing federal fleet fuel-economy requirements.

Section 107 authorizes the Secretary of Energy to establish a voluntary commitment program to reduce industrial energy intensity. Such programs have proven effective in Europe and are now being implemented in Canada. We recommend that this provision be strengthened by establishing specific goals, authorizing DOE to provide technical assistance and other services and providing that DOE report to Congress on the success of the program. Language along these lines was included in the original bill that passed the House in 2003 but unfortunately this was weakened in conference. The earlier language should be restored.

4. Updated Authorizations for Advanced Energy Research Including Energy Efficiency

Title IX authorizes DOE energy efficiency programs for the next five years. By and large this title contains a variety of useful ideas (we particularly support the work on lighting and distributed energy systems). However, the impact of this title will primarily depend on future appropriations.

Title VIII includes specific authorization for the Freedom Car and Hydrogen Fuel programs. We think these are useful programs, and the draft bill improves upon DOE's formulation of the program by setting real-world goals for the introduction and performance of fuel cell vehicles. However, it will be at least 2030 before these vehicles have any significant impact. For example, Title VIII sets a goal of 2015 for production decisions and 2020 for selling vehicles that will be accepted by consumers. Since new vehicle technologies take close to a decade to penetrate the market, it will be at least 2030 before these vehicles have a significant presence on the road. In the interim, increased efforts will be needed to improve the efficiency of gasoline-powered vehicles. Also, it is far from certain that efforts to develop a hydrogen economy will be successful, so that rather than putting all of our "eggs" in the hydrogen basket, we recommend that a diverse range of advanced high-efficiency technologies be pursued.

In summary, we support the provisions discussed above, although, as discussed later, we believe some of the tax incentive provisions should be refined to produce more energy savings per dollar of tax incentive provided. Taken together, in 2003 we estimated that these provisions will reduce U.S. energy use by about 1.5% cumulatively over the 2004-2020 period, including approximately a 3% reduction in 2020. By 2020 we estimated that these provisions will also displace the need for nearly 300 new power plants of 300 MW each. These are substantial positive impacts and well worth pursuing. We are now in the process of revising our savings estimates and expect to have updated figures about a month.

ADDITIONAL PROVISIONS CONGRESS SHOULD CONSIDER

While the provisions discussed above are a reasonable start, much more can and should be done to improve U.S. energy efficiency. We recommend that the following changes be made to the bill, either before it passes the House or in conference:

1. Adding New Consensus Efficiency Standards Negotiated with Industry

ACEEE and industry have a long history of negotiating consensus agreements on new efficiency standards. The H.R. 6 Conference Agreement included all of the consensus agreements negotiated as of November 2003. Since then we have negotiated five additional agreements with industry and recommend they be added to the . These agreements cover:

- *Commercial packaged air conditioners*. Agreement with the Air Co Refrigeration Institute and manufacturers to estab specific standards effective in 2010 based on levels in curre state efficiency standards.

- *Commercial refrigeration.* Agreement with the Air Conditioning and Refrigeration Institute and manufacturers to establish specific new efficiency standards effective 2010 and for DOE to set additional standards via rule. The new standards are based on levels in current voluntary programs and state efficiency standards.
- *Residential dehumidifiers.* Agreement with the Association of Home Appliance Manufacturers and their members to establish specific new efficiency standards effective 2007 based on the current Energy Star specification.
- *Ceiling fans.* Agreement with Home Depot (who represents about half of the U.S. market) and manufacturers to establish specific standards effective 2007 based on portions of the Energy Star specification.
- *Pre-rinse spray valves.* Agreement with Plumbing Manufacturers Institute to adopt specific standards effective 2006 based on state efficiency standards and levels promoted in voluntary incentive programs.

In addition, ACEEE is talking to manufacturers of four additional products and expects to have a few additional consensus agreements that should be considered by the Senate and by House-Senate conferees.

2. Clarifying that DOE Can Set Separate Furnace Efficiency Standards for Cold and Warm States

When the federal standards law was passed in 1987, it established uniform national standards for all products, including heating and cooling equipment. However, climate in the U.S. varies enormously from Alaska to Florida, and a one-size fits all approach may not make sense for the entire country. For example, DOE is currently conducting a rulemaking on new standards for residential furnaces, a major consumer of natural gas. Condensing furnaces (e.g., those meeting the Energy Star specification) are generally cost-effective in Northern states but not cost-effective in Southern states. An ACEEE analysis estimates that a condensing furnace standard in cold states would reduce national natural gas use by more than 150 billion cubic feet and will save consumers $3.5 billion (discounted net present value) for equipment sold by 2030. DOE's Office of General Counsel says they lack authority to set separate standards for different regions. Manufacturers claim that imposing separate standards for the North and South would create difficulties for them. However, manufacturers often have separate models for Northern and Southern climates (e.g. furnaces in the south often have larger fans in order to handle larger cooling loads) and thus we think manufacturers are overstating the difficulties. When the federal law was first passed in 1987, Rep. Barton objected to setting the same standard for cold and warm states stating on the House floor:

> The establishment of national appliance efficiency standards also ignores sharp climate variations in different regions of the country. To insist that air-conditioners in Minnesota and Indiana have the same energy efficiency rates as air-conditioners in Mississippi and Texas ignores the fact that an air-conditioner may be operated four or five times as much in warmer climates. For example, a comparison of hours of air-conditioner operation in different cities demonstrates that annual usage in Detroit is 265 hours, while usage in New Orleans is 1,370 hours. Annual heating hours in these two cities is 2,533 hours and 1.099 hours, respectively. H.R. 87[12] makes no allowance for variation.[13]

To address this problem and the large energy and economic savings that are possible with regional standards, we recommend that current law be amended to grant DOE authority to consider separate standards for the North and South for residential heating and cooling systems. This amendment should require DOE to consider the advantages and disadvantages of regional differentiation based on criteria in the underlying law, and decide whether regionally differentiated standards make sense for a particular product. To limit the impact on manufacturers, we recommend that the amendment permit only two zones and require zones to follow state boundaries and be fully contiguous (except Alaska and Hawaii). We also recommend that current law be amended to authorize (but not require) DOE to regulate combined space and water heating systems, an increasingly common equipment type that may become a "loophole" around separate furnace and water heater standards.

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[12] Subsequently adopted as the *National Appliance Energy Conservation Act of 1987.*

[13] *Congressional Record,* March 3, 1987, p. H 892.

3. Including an Energy Efficiency Resource Standard to Set Energy Saving Targets for Gas and Electric Utilities, Modeled after a Program Now Operating in Texas

Texas's electricity restructuring law (SB-7 1999)[14] created a requirement for electric utilities to offset 10% of their demand growth through end-use energy efficiency. Pennsylvania's new Advanced Energy Portfolio Standard includes end-use efficiency among other clean energy resources. Other states have set targets for energy savings from utility programs. Congress should set electric and gas end-user savings targets for utilities, with flexibility to achieve them through a market-based trading system. With trading, utilities that save more than their target can sell savings credits to utilities that fall short of their savings targets. Trading would also permit the market to find the lowest-cost savings nationwide. We recommend that these targets start at modest levels (e.g. 0.25% of sales annually) and ramp-up over several years to savings levels currently achieved by the most successful states (e.g. 0.75% of sales annually). Peak demand savings should also be included, building on a proposal in H.R. 3406 (section 103) introduced by Rep. Barton in the 107th Congress. To ensure that costs will be moderate, in addition to permitting trading, we recommend that electric and gas utilities be permitted to buy credits for 3 cents per kWh of electricity or 30 cents per therm of gas, which is less than half of the current retail cost of these energy sources. States should also be encouraged to reform their utility regulations, so that utility revenues and profits are sustained regardless of fluctuations in sales—several states have already taken this step.

We estimate that a program like this would save more energy and money than all of the efficiency provisions presently in the bill and thus inclusion of a provision along these lines should be a high priority.

4. Setting a Fuel-Savings Goal of 1 Million Barrels per Day of Oil Savings by 2013 and Authorizing Additional Tools for Achieving These Savings

There are multiple opportunities to save oil in all sectors of the U.S. economy, and we believe a reduction of 1 million barrels per day, relative to EIA projections, is eminently achievable and a good start towards the much deeper cuts needed over the next 15-20 years. One million barrels represents two-thirds of our oil imports from Saudi Arabia today. Both buildings and industry can make substantial contributions to this goal through measures such as updating building codes and efficiency standards for residential heaters, and enhancing the efficiency of industrial boilers.

The greatest opportunity to save oil lies in the transportation sector, however. We cannot afford to pass up this chance to make our passenger vehicles more efficient, and there are a number of approaches to accomplishing this. Simply requiring new vehicles to meet current fuel economy standards in their real-world performance (i.e. with a more accurate test procedure) could save over three-quarters of a million barrels per day by 2013. Strengthening the market for efficiency by extending the gas guzzler tax to the heavier passenger vehicles or by adopting a "feebate" system would also be effective measures. For example, a revenue-neutral feebate system that grants a rebate or charges a fee on vehicle purchases at the rate of $1000 for each one-hundredth of a gallon per mile above or below the average would result in fees and rebates in the hundreds of dollars for most vehicles and could save over three-quarters of a million barrels per day by 2013.[15]

There are good opportunities to save oil by boosting heavy truck efficiency as well, which would help the freight industry save on fuel costs. We estimate that freight trucks could save over 200,000 barrels of oil daily by 2013 and recommend, at a minimum, establishment of fuel economy test procedures for these vehicles in the bill.[16]

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[14] See http://texas.efficiencylink.net/ for additional information.

[15] ACEEE calculations based on data in Greene et al., 2003, *Feebates, Rebates and Gas-Guzzler Taxes: A Study of Incentives for Increased Fuel Economy.* Oak Ridge, TN: Oak Ridge National Laboratory.

[16] More information on energy-saving opportunities in trucks can be found in Langer, 2004, *Energy Savings Through Increased Fuel Economy for Heavy-Duty Trucks.* Washington, DC: National Commission on Energy Policy.1Therefore, we recommend that a provision be added to direct the Administration to set policies to achieve savings of one million barrels per day by 2013. A provision along these lines was developed by Senator Landreau in the 108th Congress and received almost unanimous support in the Senate. That provision lacked an enforcement mechanism, however, which should be added this time around. In addition, as part of this provision, authority should be granted to revise the gas-guzzler tax, establish feebates, establish t[illegible]ng and fuel economy standards for heavy vehicles, and modify passenger vehicle test proc[illegible] to better match real-world performance. We are not at this point advocating

In addition, the current bill expands the list of considerations that DOT must use in determining "maximum feasible" fuel economy when updating CAFE standards. The additional items are matters that DOT has consistently taken into account in its past fuel economy determinations, and we believe that the only consequence of altering the list would be to make the process of revising the standards more cumbersome. This provision should be eliminated

5. Addressing Barriers to Combined Heat And Power Systems by Directing FERC and EPA to Complete Current Proceedings

In times of increasing energy costs, combined heat and power (CHP; sometimes also called cogeneration) represents one of the most important opportunities available for improving efficiency, the environment and economic competitiveness. With fair rules, 50,000 MW of CHP capacity can be added by 2010 and an additional 95,000 MW added by 2020, reducing the fuel needed to generate electricity by up to 50%.[17] Major barriers to the expansion of CHP are uneven and sometimes onerous interconnection requirements imposed by some utilities and states and emissions regulations that penalize and do not reward efficient CHP systems. FERC and EPA have recognized these problems and started proceedings to address them. In the case of interconnection, FERC has opened a docket on interconnection rules for generators of 20 MW or less. We recommend that the energy bill direct FERC to complete this rulemaking within one year after the energy bill is enacted. We also recommend that the energy bill direct FERC to develop guidelines for backup power rates charged to CHP and distributed energy systems that are within FERC's jurisdiction (e.g. for electric providers with open-access tariffs on file at FERC). Such rates should be fair, reasonable and non-discriminatory. Likewise, EPA has begun to investigate how CHP systems are treated in emissions regulations. Current regulations limit emissions per unit of fuel input, regardless of how inefficient or efficient a plant is. A better approach is to limit emissions per unit of energy output, which rewards plants that can produce more electricity and useful heat per unit of energy input. We recommend that the energy bill direct EPA to develop output-based emissions requirements for CHP systems within two years of bill enactment.

6. Refining Proposed Energy Efficiency Tax Incentives

Revisions to the tax incentives provisions in the bill are under the jurisdiction of the Ways and Means Committee and not this Committee. However, in the interest of completeness, we provide the following specific recommendations on how these provisions can be improved to increase the energy savings achieved at little if any additional cost to the Treasury.

- *Combined heat and power (CHP).* Schools, hospitals, and businesses can use CHP to cut their energy bills while reducing strain on power grids. High-efficiency CHP systems are also more efficient in their use of natural gas than most central station power plants. Due to these benefits, CHP is a priority in the President's National Energy Policy plan. A CHP investment tax credit similar to the one included in the H.R. 6 Conference Report should be included in new legislation with two modifications. First, the 15 MW eligibility cap on the provision should be raised to 50 MW. Second, provisions in the original Senate language inadvertently lost in conference that made recycled energy (e.g. waste heat recovery, heat engines and back-pressure turbines) eligible should be restored. The 15 MW cap originally was intended to limit tax expenditures, but the last Joint Tax scoring indicated that the CHP tax credit actually stimulated sufficient economic activity that it provided net tax revenues rather than expenditures at least up to a 50 MW unit. For larger sizes, many systems are likely to be installed without tax credits and costs to the Treasury increase significantly.
- *Commercial buildings.* This provision creates a deduction for businesses that make major efficiency improvements. Since commercial lighting and air conditioning are among the biggest components of peak electricity loads, this incentive will help prevent blackouts and will also save lots of natural gas. This provision was in both the H.R. 6 Conference Report and Senator Domenici's S. 2095 in the 108th Congress. We prefer the S. 2095 version as the incentives and savings are somewhat higher. Based on input from DOE and others, the latest

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these specific policies, but instead recommend that they be available to the Administration as it develops its compliance plan.

[17] Nadel and Geller, 2001, *Smart Energy Policies: Saving Money and Reducing Pollutant Emissions Through Greater Energy Efficiency,* Www.aceee.org/ energy/reports.htm. Washington, DC: American Council for an Energy-Efficient Economy.

Joint Committee on Taxation analysis shows this provision will cost significantly less than earlier estimates.[18]

- *New and existing homes.* We build almost two million new homes each year; to keep them from straining power grids and raising energy prices, it is vital that they be as efficient as possible. Efficiency also makes homes more affordable to more families. To get maximum benefit from the credits, we ask that credits be offered for homes both 30% and 50% better than model codes. We recommend the S. 2095 incentive amounts as providing more energy savings per federal dollar, and the Senate language on reference codes and certification as more balanced and complete.

  One small refinement that is badly needed is to clarify that heating and cooling air distribution duct sealing and thermal envelope air sealing are both eligible for new and existing home credits. These measures reduce loss of heated air to the outside and unheated basements and attics. These are two of the largest opportunities to reduce natural gas use in homes but the H.R. 6 and S. 2095 language is ambiguous on whether they are eligible for tax incentives. Clarifying that these measures are eligible will not affect the cost caps per home but will expand the measures that can be used to achieve savings within the cost caps.
- *Home heating and cooling equipment.* The largest direct natural gas use in homes is for furnaces and water heaters. And central air conditioners and heat pumps are a large indirect user of gas since a substantial portion of peak electricity comes from natural gas. S. 2095 contains modest provisions for tax incentives for furnaces and water heaters but air conditioner and heat pump incentives were dropped due to a lack of consensus in 2003. In light of our pressing natural gas problems, and an emerging consensus on air conditioner and heat pump incentives, we recommend that the S. 2095 provision for water heaters be retained, the provision for furnaces be strengthened, and a central air conditioner and heat pump provision be added.

  For furnaces, S. 2095 provides a $125 incentive for 95% efficient furnaces and boilers plus an additional $50 for an advanced air circulation fan. We believe this can be simplified and provide more gas savings if a single incentive is provided for a furnace or boiler with 92% efficiency[19] and an efficient air circulation fan that meets a new consensus efficiency specification developed by the Consortium for Energy Efficiency (CEE) and the Gas Appliance Manufacturers Association (GAMA).[20] We recommend an incentive of about $200 in the first year when the program begins, declining to $150 in the second year and $100 in the third year as this equipment becomes more popular. To further limit costs, incentives could be limited to replacement of furnaces in existing homes since condensing furnace retrofits are more expensive and more in need of incentives than condensing furnaces in new construction applications. We also recommend that the $50 credit be offered for non-condensing furnaces that meet the CEE/GAMA specification. Such an incentive will be useful in the South where condensing furnaces often are not cost-effective.[21]

  For central air conditioners and heat pumps, we have agreed with the Air Conditioning and Refrigeration Institute (ARI) on a consensus recommendation. We recommend that a consumer tax credit be provided for units meeting the Energy Star specification in 2006-2008. This specification is scheduled to be finalized by EPA in March 2005 and will call for significant energy savings relative to the new 2006 federal efficiency standard for these products. We recommend a credit of $250 for the first two years and $100 for the third year for this technology. The credit ramps down in the third year, both to reduce cost to the Treasury and to ease the transition to a post-incentive market.
- *Home appliances.* H.R. 6 and S. 2095 both contain credits for clothes washers and refrigerators. These appliances are two of the largest energy users in the home and the credits could help millions of families control their utility bills while saving substantial energy for the nation. This provision was updated in 2003 to reflect changes in the appliance market and should be updated again. Specifically, we recommend that the clothes washer credit reference the 2007 Energy Star specification (due to be finalized by DOE in spring 2005) and that the re-

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[18] Joint Committee on Taxation. May 2, 2004. Estimated Revenue Effects of S. 1637, the 'Jumpstart Our Business Strength ("JOBS") Act," As Passed by the Senate. JCX-

[19] 92% is preferred because there are many more units available at 92% than a

[20] See http://www.cee1.org/gas/gs-ht/gas—heat—specs.pdf.

[21] For condensing furnaces, the 92% AFUE and fan requirements sho
o keep costs down. If an incentive is offered for 92% AFUE *without*
ystems will qualify, raising costs.

frigerator credit be refined to provide a $50 credit for 15% savings relative to the current federal standard, a $100 credit for 20% savings, and a $150 credit for 25% savings. These changes will better promote advanced equipment and will significantly increase the energy savings per federal dollar. These refinements are needed because the market share of 2004 Energy Star clothes washers and refrigerators has grown substantially in the past two years and the credit needs to be restructured to better emphasize advanced equipment. We also recommend that credits for more efficient dishwashers in Senator Smith's S. 2655 from the last Congress be included. We are now discussing changes along these lines with the Association of Home Appliance Manufacturers (AHAM) and hope to have consensus recommendations ready later this month. This consensus may differ in some particulars from what we discuss above.

- *Cars and trucks.* The credits proposed for advanced technology vehicles in H.R. 6 are generally sound. We are particularly supportive of the credits for advanced technology buses and heavy trucks as advanced vehicles in these categories have received less attention than advanced passenger vehicles. The H.R. 6 credits have been trimmed substantially from their original formulation; any further adjustments should tighten the energy and environmental thresholds for receipt of credit rather than reducing the per-vehicle credit for the best performers. Also, an explicit statement should be added to the diesel language clarifying that fuel economy credits should be computed on a miles-per-gallon gasoline-equivalent basis.

Energy Savings from an Enhanced Bill

In 2003, we estimated that the efficiency provisions in the H.R. 6 Conference Report will reduce U.S. energy use by about 1.5% over the 2004-2020 period, including approximately a 3% reduction in 2020 (i.e., savings will gradually ramp up from 0% in 2004 to 3% in 2020, making for an average of 1.5% over the full 17-year period). By 2020 we estimated that these provisions will also displace the need for nearly 300 new power plants of 300 MW each.

This same analysis found that inclusion of modifications along the lines suggested above will increase total savings to about 6% of total energy use over the 2004-2020 period, including approximately 12% savings in 2020. With these modifications, peak power needs will also drop, displacing the near for more than 700 new power plants of 300 MW each. Thus, taken together, the additional provisions and refinements we recommend would increase energy savings under the bill by about a factor of four.

We are now in the process of revising our savings estimates and expect to have updated figures in about a month.

Conclusion

Energy efficiency is an important cornerstone for America's energy policy. Energy efficiency has saved consumers and businesses billions of dollars in the past two decades, but these efforts should be accelerated in order to:

- save consumers and businesses even more money;
- change the energy supply and demand balance and put downward pressure on energy prices;
- decrease reliance on imported oil;
- help with economic development (since savings from energy efficiency generates jobs); and
- reduce carbon emissions, helping to moderate growth in the gases that contribute to global climate change.

The provisions in the draft Energy Policy Act of 2005 take modest steps in this direction, particularly the sections establishing new appliance and equipment efficiency standards and tax incentives for advanced energy-saving equipment, vehicles and buildings. *Overall, we estimate that this bill will reduce U.S. energy use by about 3% by 2020.*

But much more can and should be done. We recommend that Congress include the following provisions:

- Adding new consensus efficiency standards on commercial air conditioning and refrigeration systems, ceiling fans, dehumidifiers, and restaurant spray valves based on consensus agreements we have negotiated with industry.
- Adding additional consensus efficiency standards if negotiations now underway for several products can be successfully completed.
- Clarifying that DOE can set separate furnace efficiency standards for cold and warm states.
- Including an Energy Efficiency Resource Standard to set energy saving targets for gas and electric utilities, modeled after a program now operating in Texas.

- Setting a fuel-savings goal of 1 million barrels per day of oil savings by 2013 and authorizing additional tools for achieving these savings such as fuel-economy testing for heavy vehicles, "feebates" for passenger vehicles (a revenue-neutral system of fees and rebates based on fuel economy), and modification of passenger vehicle test procedures to better match real-world performance.
- Addressing barriers to combined heat and power systems by directing FERC and EPA to complete current proceedings on interconnection and output-based emissions permitting.
- Refining proposed energy efficiency tax incentives in order to better promote advanced equipment and practices, increasing savings while having little or no impact on costs.

These provisions would increase the savings under the bill by about a factor of four, reducing U.S. energy use by about 12% in 2020. Failure to take these steps now will make it more likely that Congress will again have to address energy problems in the not very distant future.

This concludes my testimony. Thank you for the opportunity to present these views.

Mr. HALL. Thank you. Good testimony. I thank you for it. Okay. I am going to be as brief as I can. I will begin over here, Mr. Kuhn, with you. In your testimony, you make no mention of the standard market design or the voluntary transmission pricing plans provisions. Does EEI have a position on these, and if so, what is it?

Mr. KUHN. Mr. Chairman, I think that as Mr. English and other people have testified here, the electricity provisions are a delicately balanced compromise, that I think a lot of people have supported in the past, and continue to support, and we really think these provisions need to remain in the bill. With respect to the participant funding that you mentioned, you know, we strongly believe in the principle that cost causation must follow the cost responsibility. The cost must follow the cost causation. The provisions in the whole electricity title, I think, are if you start tinkering, somebody wants to start tinkering with some of them. Other people are going to want to start tinkering with them the opposite direction, and I think you have got a provision in there that is supported by a lot of different organizations, and we believe that, as the Department of Energy testified, it is probably the most important provision in the energy bill, the electricity provisions overall, and it should move forward.

Mr. HALL. All right, and I thank you. And I thank you for being almost as brief with your answer as I was with my question. We are getting somewhere. Ms. Church, if States do return to the utility bill programs, and you know what I am talking about, don't you?

Ms. CHURCH. Yes.

Mr. HALL. Are there any measures like competitive bidding, something like that, that could lessen the impact on consumers?

Ms. CHURCH. Yes. We are trying to work with State commissioners to help them, and they understand the benefits of competitive bidding for new supplies. We believe that the States ought to adopt provisions that set up a good, competitive bidding program, with an independent referee, if the utility or its affiliates are in the bidding. And the FERC has, in some recent cases, said that they believe that this competitive bidding is also a very good factor in keeping market power abated.

Mr. HALL. Okay. And I thank you. Alan, I thank you first, for you and your organization being so nice to me yesterday, when I

Mr. ENGLISH. Well, we try to keep the number of bridges coming from Texas in Oklahoma down, Mr. Chairman. We are a little concerned about the kind of traffic you get on that one.

Mr. HALL. I understand that.

Mr. ENGLISH. From the North.

Mr. HALL. If we keep that Oklahoma football up there in Norman, we would be a little happier.

Mr. ENGLISH. Well, that is the one bridge we are keeping open. Thank you very much.

Mr. HALL. Ms. Callahan, we recognize you at this time.

Ms. CALLAHAN. Chairman Hall, I have a letter that has been signed by 27 organizations in support of the ESPC program that I mentioned in my testimony, and I would like to have that submitted for the record if I could, please.

Mr. HALL. Without objection.

Ms. CALLAHAN. Thank you.

Mr. HALL. It is submitted.

You suggest in your testimony that one of the ways to reduce our reliance on foreign sources of energy, which is just one of the major pushes and thrusts in this whole bill, would be to improve energy efficiency in the transportation sector, specifically by altering the CAFE standards. And I am particularly interested in your approach of closing the CAFE loophole, and terminating the credit for dual fuel vehicles. Wouldn't reducing incentive for alternative fuel-burning technology be counterproductive in the overall effort of achieving greater dependence on domestic sources of energy, or would it? I will give you the opportunity to put something in the record that suits you.

Ms. CALLAHAN. Thank you, sir. I appreciate that, and I do think closing the loopholes is very important, because if we do it, we can get to meaningful increases and improvements in CAFE, and the EIA estimates, for example, that on-road, real world driving is about 20 percent, uses 20 percent more gasoline than is estimated now on the testing that EPA uses for CAFE, so that is a loophole, we believe. Those tests need to be reformed, and I will submit for the record the entire list of loopholes, but you mentioned dual fuel, so let me just say that we are a fuel-neutral organization, but the dual fuel credit, which allows vehicles to either burn on an alternative fuel, or burn on gasoline, is being used in an unintended way. The vehicles run about 99 percent of the time on gasoline, so they are getting a credit for doing something that in the real world isn't happening. Let me just say, there are only 188 ethanol stations in this country in 27 States, so it is a loophole that we think it is. There is an unintended action that is not what the Congress intended when they put it in place.

Mr. HALL. I thank you. I have just been told my time is up. Mr. Boucher told me. And I recognize him for whatever time he consumes. I think he has a plane to catch.

Mr. BOUCHER. Well, thank you very much, Mr. Chairman. I would never presume to suggest to you that your time has expired. It has, however.

Mr. HALL. All right.

Mr. BOUCHER. Mr. Richardson, let me just ask a question of you, and I am going to be very brief, in view of the time that—we have been here a long time today. You have described in your testimony the problems that you have, associated with the difficulty in obtaining firm, long-term transmission rights, which presumably creates a real difficulty in getting long-term generation contracts. And I guess that leads to an incentive on the part of the generators to build gas plants rather than the more expensive coal plants or nuclear plants, that would require long-term contracts in order to get financing, none of which really serves the public interest very well, in my opinion. So I think we would acknowledge there is a problem. The question I have for you is what is the solution? What do you recommend to us, in terms of a way to make sure that the transmission contracts can be both firm and long-term?

Mr. RICHARDSON. Well, you are correct. We do have a problem with long-term transmission. It does have those consequences, and as a result, a lot of my members are pursuing what they were calling a Robinson Crusoe strategy, which is to do it themselves, and do it close to home, because they don't want to depend, and they can't depend on the transmission grid.

There are a number of things that can be done. The service obligation language, which assures that load serving entities have the ability and the right to use the transmission that they either own, or they have arranged for under contract or service agreements, is one step in that direction.

I do mention in my testimony the need for new transmission. There are things that can be done that I also address in my testimony, including opening the door to public and cooperative investment in transmission. The transmission-dependent utilities, by and large in this country, are publicly owned or cooperatively owned. A great source of capital. We are in wonderful financial shape. We are very stable, and able to help build out the transmission grid. We also recommend a change in the service obligation language to not only look at the arrangements as they exist today, but to ensure that there are long-term arrangements in place in the future.

We have also offered very specific recommendations to the Federal Energy Regulatory Commission, with how they deal with transmission, long-term arrangements in the RTO context.

Mr. BOUCHER. I notice that the FERC has recommended to us that the electricity reliability organization be given the authority to order that new transmission be built in appropriate circumstances. Would that, if put into practice, address this problem at all? Is it based on the lack of transmission capacity in certain places, or does this inability to get firm transmission rights arise from other problems?

Mr. RICHARDSON. Well, it arises, I think, from many, many other problems, in part, lack of infrastructure. I haven't looked at what the Commission has recommended, in terms of their authority to the ERO, but as I heard it described this morning, I heard it described as the authority to order transmission for reliability purposes, and therein lies a problem, as far as far as I can see. It is the problem we have with participant funding as well: trying to identify transmission solely in terms of reliability or solely in terms of economics. In other words, what do you need to keep the lights on, regardless of the cost, is reliability, and then anything else beyond that is for economic purposes.

I am not sure how far the Commission's recommendation would go in addressing the transmission infrastructure problem that we have.

Mr. BOUCHER. All right. Ms. Church, would you care to comment on this set of matters? I think it would——

Ms. CHURCH. Yes, thank you.

Mr. BOUCHER. [continuing] concern you equally from the generator side.

Ms. CHURCH. Yes, and let me assure you that my members do want to sign long-term contracts, both for existing facilities, and certainly, in terms of building new facilities. It would be very difficult to build new facilities, for many of those companies, without long-term contracts. And firm transmission capacity is certainly a perceived problem by many of our customers, including Mr. Alan Richardson's members. We would like to try to work around that. It has been said that we want to sell into the spot market. I can assure you that we didn't build these plants, in most cases, to sell into the spot market. We want to sell in a portfolio of long, medium-term, and short contracts. And so, we would like to work with our customers to try and, with the FERC, to try to work around this issue.

Mr. BOUCHER. Do you have some suggestions for us, in terms of statutory provisions that would help address the problem?

Ms. CHURCH. We will get you something, sir, if I may. I don't have anything right with me today.

Mr. BOUCHER. All right. Well, if you choose to do so.

Ms. CHURCH. Thank you.

Mr. BOUCHER. All right. Mr. Chairman, my time has expired. Thank you very much.

Mr. HALL. Thank you. The Chair recognizes Mr. Dingell.

Mr. DINGELL. I would like to welcome the panel, particularly Mr. Kuhn and our old friend, Mr. English. Mr. Kuhn, I find myself interested. You are familiar, in the discussion draft, line 15, page 5, and following down through 18. All fees, dues, other charges collected by the ERO in each of the fiscal years, and allocated under subsection—under subparagraph (b) shall not exceed $50 million. What does it mean?

Mr. KUHN. Mr. Dingell, I am not sure I know exactly what it means either, but I know I am concerned by it.

Mr. DINGELL. What does it mean, in terms of the amount which could be collected, the amount which can be spent? How would that contrast with the amount that would have to be done to address the problem of rulemaking in all of the different regions? Remember, this is going to cover rulemaking. It is going to cover proceedings, travel. It is going to cover the membership fees and dues. It is going to cover witness fees and things of that kind, expert testimony, recordkeeping, computers, computer studies. Is that too low a number to address the problem of reliability?

Mr. KUHN. Mr. Dingell, we are very concerned, I think, with that language, as you are mentioning, and want to work with the committee to address the questions you are answering. Reliability is the No. 1 priority in our industry. We all agree on the establishment of an electric reliability organization. This organization, incidentally, is going to be self-funded. It is going to be funded by industry.

Mr. DINGELL. But we are saying that you can't collect more than that much for the self-funding.

And we are saying, and this is not Federal money. This is money where you are carrying out a Federal requirement, but it is also money which is necessary to avoid something like $100 billion in the cost of shutdowns over the course of a year.

Mr. KUHN. Yes, sir. We disagree with the CBO that it should be a budget item in any case. Much like the ERO is patterned much like on the Institute for Nuclear Power Operations.

Mr. DINGELL. Do you have any idea——

Mr. KUHN. Or the NASD, in which they fund themselves. They are self-funded, and it does not have budgetary implications.

Mr. DINGELL. Do you have any idea whether you could effectively do the job that you have to do to address the problem of reliability? Remember, you have got to have—the reliability council is going to cover how many utilities?

Mr. KUHN. You have the NRC, you have the——

Mr. DINGELL. And how many——

Mr. KUHN. [continuing] greatest reliability regions, and the funding for all of them right now could add up somewhere in the neighborhood of $50 million, and it could be——

Mr. DINGELL. And it is going to cover every utility in the country. It is going to cover every one of the reliability areas, which are—supposed to 7 or 8, won't it? It is going to cover Canada. It will cover, perhaps, Alaska. And it may even cover relationships with Mexico. Now, can we do what has to be done with this $50 million limitation on it?

Mr. KUHN. We are definitely interested in working with the committee to address this issue.

Mr. DINGELL. Now, would this cap apply only to funds, rather, only to fines, which are assessed for violations of reliability rules? Or would it apply to that, in addition to other things?

Mr. KUHN. I don't think we have done a sufficient enough analysis to say all the things that it wouldn't apply to.

Mr. DINGELL. All right. Well, I think we need a little help on this issue. Now, Mr. Richardson, you made some excellent comments, which I appreciated. You caution against PUHCA repeal, but you argue that the—that if Congress takes this step, it should enact compensating consumer protections. Does the discussion draft satisfy this requirement, in your view?

Mr. RICHARDSON. We would like to see more protections.

Mr. DINGELL. You would like to see more?

Mr. RICHARDSON. We would like to see more.

Mr. DINGELL. What would you like to see more of?

Mr. RICHARDSON. As I mentioned earlier, we would like to see FERC authority over generation only.

Mr. DINGELL. That is the testimony——

Mr. RICHARDSON. Consolidation.

Mr. DINGELL. [continuing] on page 18?

Mr. RICHARDSON. Pardon me?

Mr. DINGELL. That is your testimony on page 18?

Mr. RICHARDSON. I don't recall the page, sir, but yes, that is my testimony.

Mr. DINGELL. And you specifically said expanded FERC authority to identify market-manipulative and anticompetitive behavior.

Mr. RICHARDSON. Yes, sir.

Mr. DINGELL. Is that in the discussion draft?

Mr. RICHARDSON. The discussion draft, as I recall, addresses only one specific trading practice, which is round trip trades.

Mr. DINGELL. And it needs to cover more, is that right?

Mr. RICHARDSON. I believe so. Yes, sir.

Mr. DINGELL. Now, in this, you also said they need explicit authority for FERC to review transfers of generation assets, utility holding company mergers, and consolidation of natural gas and electrical utilities. That is—is that in there?

Mr. RICHARDSON. Yes. Is it in the draft? Is it in my testimony——

Mr. DINGELL. Is it in the draft?

Mr. RICHARDSON. [continuing] or the draft? It is in my testimony, not in the draft.

Mr. DINGELL. But is it not—is it in the draft? Okay.

Mr. RICHARDSON. No.

Mr. DINGELL. Your testimony.

Mr. RICHARDSON. No, it is not.

Mr. DINGELL. I am reading your testimony.

Mr. RICHARDSON. Yes. Thank you.

Mr. DINGELL. All right. Then, you say enhancement of FERC's existing review, or merger review authority, with higher threshold for merger approval. Is that in there?

Mr. RICHARDSON. In the draft? No, sir, it is not.

Mr. DINGELL. It is not. Expanded FERC authority to identify market-manipulative and anticompetitive behavior. We have already decided that is not in there, is that right?

Mr. RICHARDSON. That is correct.

Mr. DINGELL. Then, the fourth item you cover is authority to impose substantial penalties for violations. Is that in there?

Mr. RICHARDSON. There are——

Mr. DINGELL. In the draft?

Mr. RICHARDSON. The penalties, I believe, have been increased——

Mr. DINGELL. Now, dear friend, just tell me. It is in the draft——

Mr. RICHARDSON. It is in the draft.

Mr. DINGELL. [continuing] or it isn't in the draft.

Mr. RICHARDSON. The draft. There are provisions in the draft for higher penalties.

Mr. DINGELL. Are they adequate?

Mr. RICHARDSON. I am sorry, Mr. Dingell. I don't recall the dollar amount of the——

Mr. DINGELL. Would you submit to us——

Mr. RICHARDSON. [continuing] increased penalty?

Mr. DINGELL. [continuing] whether, in your view, they——

Mr. RICHARDSON. Yes, sir.

Mr. DINGELL. [continuing] are adequate or inadequate, or why not, or why? Please? For that. And I will let you do that at——

Mr. RICHARDSON. Certainly. Thank you.

Mr. DINGELL. [continuing] the time of your own choosing. Now, true, you say, then, truthfully, a truly meaningful access to holding company books and records. Is that in the draft?

Mr. RICHARDSON. No, sir. Not in my opinion.

Mr. DINGELL. Okay. So those things need to be in there for the protection of who now? The consuming public?

Mr. RICHARDSON. For the protection of the people that were intended to protected by the Holding Company Act in the first instance, which are consumers and investors.

Mr. DINGELL. Now, I gather you don't feel that the bill's ban on round trip trades covers all the bases that needed to be covered? Do you support enactment of broad FERC authority to bar and punish a broad spectrum of fraudulent or manipulative behavior, along the lines of H.R. 1272, which a number of Democratic members of this committee, including myself, introduced in the last Congress?

Mr. RICHARDSON. Yes, sir.

Mr. DINGELL. You do? All right. Mr. Chairman, you have been gracious. Thank you. Thank the gentleman and ladies.

Mr. HALL. Thank you, Mr. Chairman, and I think that concludes the hearing with a very patient group, and I apologize for you having to stand by for that hour, and I thank you for what you have done for the energy thrust, and I thank the chairman for coming back, the former chairman, Mr. Dingell. He always has something worthwhile to say, and he is worth listening to. I have learned a lot from him the 24 years, 3 months, and 6 days I was a Democrat, and I am still learning from him.

I appreciate him, and thank you, Mr. Boucher. We are adjourned.

[Whereupon, at 3:33 p.m., the subcommittee was adjourned.]

[Additional material submitted for the record follows:]

PAUL E. GILLMOR
5TH DISTRICT, OHIO

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FINANCIAL INSTITUTIONS AND CONSUMER CREDIT

Congreſs of the United States
House of Repreſentatives
Washington, DC 20515–3505

February 15, 2005

The Honorable Hilda Solis and Democrat Members,
Subcommittee on Environment and Hazardous Materials
2125 Rayburn House Office Building
Washington, D.C. 20515

Dear Mrs. Solis and fellow Democrat Colleagues:

Thank you for your letter of February 7 regarding your interest in reforms to the Leaking Underground Storage Tank (LUST) program.

Like you, I am very interested in seeing meaningful operation and necessary reforms made to the LUST program. During my term as chairman of this subcommittee, we have had hearings in both the 107th and 108th Congresses (on May 21, 2001 and March 5, 2003) that have received important testimony on the need to improve the LUST program to protect groundwater. In addition, the oversight subcommittee also looked into the role of tanks and MTBE in the 107th Congress.

As for future action on LUST, I would very much like to continue our subcommittee's oversight of this program, including hearings. I intend to talk with Chairman Barton about his intentions with regard to the energy bill. My decision concerning future action on this matter in the subcommittee will be based upon his input and my estimation of the chances for bipartisan cooperation that both improves upon the LUST provisions in the energy bill and gains votes for its passage. I hope that you will respect my position as Chairman of this subcommittee because I respect your appointment to this panel.

Sincerely,

Paul

Paul E. Gillmor
Chairman
Subcommittee on Environment and
Hazardous Materials

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Congress of the United States
House of Representatives
Washington, DC 20515

February 9, 2005

The Honorable Patrick H. Wood, III
Chairman
Federal Energy Regulatory Commission
888 First Street, N.E.
Washington, DC 20426

Dear Chairman Wood:

Please provide a written explanation to the Committee describing the authority, scope of testimony and ability to speak for the Commission of Commission Staff when they testify before a Congressional Committee. A prompt reply would be appreciated.

Sincerely,

Joe Barton

Joe Barton
Chairman

JB/

PRINTED ON RECYCLED PAPER

Record

PERMANENTLY AUTHORIZE
ENERGY SAVINGS PERFORMANCE CONTRACTING (ESPC)

TO: Members of the House Energy & Commerce Committee
FROM: Coalition to Permanently Authorize ESPC
RE: Unfinished Business from the H.R. 6 Comprehensive Energy Bill
DATE: February 2005

Dear Representative:

As you consider comprehensive energy legislation, we urge you to include a permanent authorization of the federal Energy Savings Performance Contracting (ESPC) program that was agreed to in the H.R. 6 conference agreement of the 108th Congress. This innovative program helps the federal government improve energy and water efficiency in federal buildings, saving taxpayer dollars that would otherwise be spent on high utility bills. Not only does the ESPC program create project jobs in many local districts, it assists in achieving U.S. energy independence by reducing consumption of electricity, natural gas, and other resources.

Under the ESPC program, private sector energy service companies install and maintain new energy efficient equipment in federal facilities through the use of private sector financing. The energy service company is paid back over time from the dollars saved by the federal agency on its energy and maintenance bills. The savings are contractually guaranteed to exceed payments. The savings are guaranteed to be available to repay costs. Government agencies keep all the utility savings thereafter. ESPCs save the federal government money and energy, upgrade military bases and federal facilities, and create jobs!

The ESPC program expired on October 1, 2003, but Congress deemed the program important enough to reauthorize it for an additional two years in the FY 2005 Defense Authorization bill. But because the program lapsed in authority and agencies could not continue to support new contracts, many had begun to scale back or stop using this important contracting tool. This program is again set to expire on October 1, 2006. Without reauthorization, it will be increasingly unlikely that many federal agencies will be successful in meeting their Presidentially-mandated energy saving goals by 2010. We urgently request that Congress permanently reauthorize the ESPC program to realize the important energy efficiency gains and taxpayer savings made possible by this program.

The major roadblock to achieving permanent reauthorization has been the conflicting scoring approaches used by the Office of Management and Budget (OMB), which scores the program at zero, and the Congressional Budget Office (CBO), which views the private industry investments under ESPC contracts as federal outlays and does not account for the guaranteed savings in the program to offset the "worst case" analysis. The Coalition Members, including those listed below, are working with CBO to resolve whether CBO can take into account the federal savings that are accrued in the CBO score of the program.

Each of the undersigned organizations supports the ESPC program and believes that, since its inception, ESPCs have resulted in enormous cost and energy savings to the Federal government, none of which could be achieved without the aid of ESPC project financing. We urge you to include a permanent extension of the ESPC program in the comprehensive energy bill.

Thank you for your consideration of this request.

Sincerely,

Kateri Callahan
President
Alliance to Save Energy

Tom Kuhn
President
Edison Electric Institute

Alan H. Richardson
President & CEO
American Public Power Association

Erbin Keith
Vice President
Sempra Energy

Mark Wagner
Vice President Government Relations
Johnson Controls, Inc.

Gerald Koenig
Hannon Armstrong

JoAnn F. Ryan
President and CEO
ConEdison Solutions, Inc

Kent Anson
Vice President, General Manager
Honeywell Energy Services

Beth Shearer
President
Beth Shearer & Associates

Glenn Hahn
Spirax Sarco Inc.

Rhone Resch
Executive Director
Solar Energy Industries Association

Roger Richmond-Smith
Director, Executive Vice President
Turbocor Inc.

William Gruber
President
United Financial of Illinois, Inc.

Jennifer Schafer
Federal Performance Contracting Coalition

Lisa Jacobson
Executive Director
Business Council for Sustainable Energy

Eliot Protsch
Chairman of the Board
Cogenex Corporation

John Mahoney
Chief Operating Officer
Chevron Energy Solutions

Jan Schori
General Manager
Sacramento Municipal Utility District

Patrick M. McCarthy
Vice President
Energy & Environmental Services
Aspen Systems Corporation

Neil Petchers
Executive Vice President
NORESCO

Thomas K. Dreessen
CEO
EPS Captial Corp.

James B. Redden
President
Select Energy Services, Inc.

Mark M. MacCracken
CEO
Calmac Manufacturing Corporation

Alecia Ward
Executive Director
Midwest Energy Efficiency Alliance

Contract Services Association of America

Professional Services Association

National Council for Public Private Partnerships

PREPARED STATEMENT OF MARTY KANNER ON BEHALF OF CONSUMERS FOR FAIR COMPETITION

Mr. Chairman, members of the Subcommittee, my name is Marty Kanner; I am testifying today on behalf of the Consumers for Fair Competition (CFC), an ad hoc coalition of small and large electric consumer representatives, small business contractors, public interest groups, consumer owned utilities and others. Consumers for Fair Competition was formed to advance policies necessary to promote effective wholesale competition and has been active in the restructuring debate and efforts to block repeal of the Public Utility Holding Company Act (PUHCA) absent sufficient replacement provisions designed to protect consumers and investors.

Much has transpired since this Committee last discussed electricity legislation. CFC believes it is important to reflect on the turmoil that has occurred in the utility industry over the past few years, revisit the assumptions that underlie last year's energy bill conference report and proceed cautiously.

At previous hearings, CFC testified about the difficulties associated with transitioning the wholesale market from cost-of-service rate regulation to reliance on competitive market pressures. Today we are no closer to the goal of market efficiency and the legislation before you, regrettably, will likely make the situation worse.

To highlight the current disfunctionality of the market, let me share with you an excerpt from a recent filing at the Federal Energy Regulatory Commission (FERC) by various industrial customer groups located in the Midwest. As you recall, it was largely industry that led the charge for greater reliance on markets in the electric industry, and the Midwest is the region that is frequently cited as the poster child of success. Given that background, the picture painted by Midwest industrial customers is a stark warning:

> "While market-based rate authority may produce minor benefits in the form of administrative convenience, the results for customers, many of which are struggling to compete in our global economy, evidence a trend line that is dramatically different than the lower price, better service, and innovation expectations that were created by the Commission and others as a predicate for reform."

Mr. Chairman, I believe that this cutting indictment should cause each of us to pause.

The members of CFC share your desire to craft a comprehensive energy bill. However, as the bill moves through Congress, it is our hope that many of the assumptions—I would argue false assumptions—of the legislation will be reconsidered and a sound, coherent policy advanced that provides the lower prices, better service and innovation that we all envision.

In the remainder of my testimony, I'd like to explore some of these false assumptions, focusing on three topics: the Public Utility Holding Company Act (PUHCA), market manipulation and abuse, and transmission.

THE FALSE ASSUMPTIONS OF PUHCA

The bill before the Committee—like bills in each of the last few Congresses—includes repeal of the Public Utility Holding Company Act (PUHCA). Congress enacted PUHCA as a companion statute to the Federal Power Act. PUHCA establishes passive restraints on the structure of the electric utility industry in order to mitigate market power, preclude practices abusive to captive consumers, protect investors from deceptive securities practices, promote the financial integrity of utilities, and facilitate effective regulation. Under the Act:

- Multi-state utility holding companies must be physically and operationally integrated in order to ensure economic benefits and facilitate effective regulation;
- Holding company acquisitions are limited in order to promote economic and operational efficiencies and prevent undue concentration;
- Multi-state utility holding company diversification activities are restricted in order to maintain a focus on the core business of utility service to captive consumers, limit financial risks to ratepayers, and protect businesses in unregulated industries from anti-competitive cross-subsidies;
- Inter-affiliate transactions are limited in order to prevent undue favoritism and self-dealing; and
- Capital structures and holding company investments are regulated in order to protect captive ratepayers and investors from unwarranted financial risk.

So what are the false assumptions underlying PUHCA repeal?

1. **PUHCA inhibits investment.** If by investment we mean building new infrastructure, this assertion is false. Under PUHCA, utilities can build new genera-

tion, transmission and distribution within their service territory. Moreover, they can build merchant generation anywhere in the country. PUHCA does limit acquisitions of existing utilities, but I question whether this is properly labeled as "investment"—much less beneficial.

2. **PUHCA is unnecessary.** Repeal proponents claim that financial regulation and investor sophistication have matured since PUHCA was enacted, and that effective state and federal oversight is adequate. However, a comparison of the financial health of those utilities that are and aren't subject to PUHCA paints a different picture. As you may be aware, several rating agencies have issued reports on the beneficial impact of PUHCA and the potential erosion of credit quality that could result from the Act's repeal. In a February 2004 report, Standard & Poor's concluded that "existing utility credit would be best served from enforcement of PUHCA's provisions and restriction of utility investment in outside businesses" and that repeal could precipitate a "deterioration in credit quality for utilities whose corporate parents have an appetite for great risk if PUHCA is repealed." Similarly, a September 2003 review by FitchRatings determined that, as a result of diversification restrictions, PUHCA-registered companies were less likely to suffer "multicategory" credit downgrades.
3. **PUHCA is only a financial statute.** Many repeal proponents claim that PUHCA is not a consumer protection statute. We need look no closer than the impact of utility diversification on consumers. An analyst with Williams Capital recently noted that "utility investment rarely goes terribly wrong; non-utility investment rarely goes right." But, unlike other industries, it's not just the utility and its investors that suffer from bad investment decisions. As detailed in a December 26, 2002 *Wall St. Journal* front-page article, utility customers suffer the consequences—with utility assets pledged for nonutility ventures, debts from bad investments transferred to utility ratepayers, and utility capital costs rising as a result of failed diversifications.
4. **PUHCA repeal won't harm competition.** The utility industry is growing increasingly concentrated. Industry experts predict that the failure of recent diversifications and foreign investments are likely to push utilities to look closer to home for their next acquisition. A new wave of utility mergers, coupled with likely consolidation and acquisitions within the merchant generator sector, is on the horizon. Fewer market players will exist to provide competitive power supply alternatives.
5. **PUHCA is irrelevant.** It is frequently asserted that PUHCA is an outdated and antiquated law, but that is hardly the case—and evidence is to the contrary. Indeed, the ongoing CSW-AEP case at the SEC, efforts by the Texas Pacific Group to buy Portland General Electric, and the latest mega-merger where Exelon proposes to buy PSEG seems to indicate that PUHCA is still relevant—and, we would argue, necessary.

Mr. Chairman, as you know, Congress has previously enacted amendments to PUHCA, allowing utility investment in merchant generation and telecommunications services. As I have previously testified, CFC is willing to consider targeted amendments to PUHCA if a clear and discernable problem can be identified and an appropriate solution negotiated.

THE FALSE ASSUMPTIONS OF MARKET MANIPULATION AND ABUSE

We are all by now familiar with the callous manipulation, complex schemes and misleading names unleashed by Enron on consumers throughout the West. Some wish to believe that this was merely a growing pain or the actions of a "bad apple". Yet the quote I shared with you at the beginning of my testimony notes that the stated benefits of competitive markets have proved illusive. I believe the assessment is much worse.

So what are the false assumptions about market manipulation and abuse?

1. **Markets discipline rates and behavior.** Economic theory tells us that competitive pressures will drive down prices and check anti-competitive behavior. In electricity markets, the theory is not working. In every region, wholesale prices are going up and there are fewer—not more—competitive choices.
2. **It was only Enron.** Clearly, this statement is false. For months and months, new stories rolled out about various market participants inflating and reporting false price and volume data, intentionally shutting down plants to drive up prices, creating complex schemes to evade price caps, self dealing, and discriminating against competitors. This is not an isolated incident.
3. **Market rules and monitors are adequate.** Time and again we've seen that clever traders cannot only evade market rules (and, frequently, detection), but that these very rules often create new opportunities for manipulation and

abuse. A strong, structural solution is needed to prevent and correct market manipulation and abuse.

4. **We're creating a free market in electricity.** Recent policies and decisions suggest that wholesale power sales—made at market rates—still receive the protection against anti-trust claims that existed under a regulated system. Utilities can have it both ways: the absence of both regulatory scrutiny of costs and rates and insulation from anti-trust laws. No other industry has this hybrid "best of both worlds".

FALSE ASSUMPTIONS ABOUT TRANSMISSION

Mr. Chairman, there is no doubt that there is a need for substantial investment in transmission to support wholesale transactions, relieve congestion, and ensure reliability. The bill before the subcommittee includes numerous transmission-related provisions.

However, CFC believes that some of these provisions are based on false assumptions.

1. **The return on transmission is too low to promote investment.** Utilities and others argue that investment in transmission is low because the rate of return is inadequate to attract capital. On its face this is absurd: guaranteed rates of return of 10 "15 percent, for what are usually low-risk investments, are obviously adequate to attract capital. Moreover, stand-alone transmission companies—like ATC and ITC—have been able to attract capital and build transmission without inflated rates of return. This suggests that there are other economic factors at work. First, transmission investment is often dictated by the economics of generation. Second, a constrained transmission system serves the economic interest of large generators that can extract higher prices for power sales and shut out competitors. So-called incentive rates for transmission merely raise transmission rates without fostering any new construction that wouldn't occur anyway.
2. **Price signals—like locational marginal pricing (LMP)—will encourage investment.** LMP does highlight where transmission congestion and constraints exist. But this is information we already know, and LMP does nothing to relieve the problem or to encourage new investment. Since any new investment (of generation or transmission) could remove the congestion—and the extra profits that LMP creates—economics encourages the incumbent parties to leave the constraint untouched.
3. **The party requesting new transmission should pay for it.** It sounds simple: the party that causes the transmission to be built should pay the cost of the investment. But this overly simplistic standard ignores the fact that most transmission investments produce broadly distributed benefits in reliability and market liquidity, and that these benefits shift over time as the system and use develop. Moreover, directly assigning new transmission to a small pool of participants creates economic inequity (since there's no assignment of costs for vintage facilities) and creates a barrier for new investment.

CFC RECOMMENDATIONS FOR ELECTRICITY LEGISLATION

Mr. Chairman, we have highlighted the false assumption that are the underpinnings of several significant provisions in the legislation before you. It is our hope that the Committee will revise the legislation in a number of significant ways. In particular, CFC urges you to:

- **Broadly bar fraudulent and manipulative practices.** Rather than attempting to list specific, abusive transactions that are banned—like round-trip trades—the legislation should recognize that market complexity and participant ingenuity creates an endless series of attempts to evade rules, manipulate operations and prices, and create additional profits. Congress must establish a broad, enforceable ban on fraudulent and manipulative practices.
- **Remove the regulatory shield against anti-trust actions from sales at market rates.** In the absence of active rate regulation, there is no reason for wholesale power sales to be immune from anti-trust action. Removing this shield will treat utility sales like all other provide states and consumers with an enforcement and remedial tool and serve as a powerful deterrent against manipulative practices.
- **Retain PUHCA.** As outlined above, CFC sees no compelling reason to repeal PUHCA. Financial experts conclude that PUHCA serves both utilities and bondholders; consumers realize that PUHCA prevents costly mistakes; and, I submit, many small and medium-sized private utilities welcome the fact that PUHCA keeps them from becoming takeover targets. As noted, above, we are

willing to engage in a thoughtful discussion of targeted amendments to PUHCA designed to simultaneously meet legitimate problems and protect consumers and investors. It is noteworthy that no bona fide consumer group supports PUHCA repeal.

- **Review All PUHCA Exemptions.** Enron, after its acquisition of Portland General Electric, self-certified that it qualified for an intrastate exemption under Section 3 of PUHCA. Interestingly, an SEC judge recently ruled that Enron did not qualify for the intrastate exemption based on the percent of revenues Portland General Electric earned from interstate sales. A mandated review of all outstanding Section 3 PUHCA exemptions is needed to ensure that those exemptions are still appropriate and in the public interest.
- **Gaps in the review of utility mergers must be closed.** The weakened financial condition of the merchant generation industry may translate into a significant increase in mergers and acquisitions. Such activities may be economically beneficial—but that can be determined only after careful review. Disposition of generation-only assets may not be subject to review by FERC. Congress must close this gap—not weaken federal review of utility mergers.
- **Congress should resist dictating transmission rate policies.** Establishing rigid, statutory rules will raise consumer rates, stifle competition and inhibit construction of new transmission.

CONCLUSION

The bill before the Committee is the conference report from last year. While that may suggest to some that it represents broad consensus, it must also be remembered that it did not become law—in part because of controversy surrounding the electricity title. In an effort to reach consensus, we are hopeful that significant revisions can be adopted as the process goes forward. As always, Mr. Chairman, we are committed to working with you, your staff and the members of the Committee. However, we are skeptical that appropriate and beneficial electricity legislation can be negotiated and crafted at this time. If Congress cannot include the provisions needed to protect consumers, then CFC would urge deferral of action on electricity legislation until those provisions can be included.

On behalf of Consumers for Fair Competition, I thank you for this opportunity to testify.

RESPONSE FOR THE RECORD BY STEVEN M. NADEL, EXECUTIVE DIRECTOR, AMERICAN COUNCIL FOR AN ENERGY-EFFICIENT ECONOMY

Question 1. What is the status of negotiations on four additional consensus efficiency standards?

Response: As of this writing, discussions on all four products are proceeding. Since discussions are underway, I prefer not to mention products by name. In all four cases specific proposals for consensus standards have been exchanged. In two cases, some manufacturers are agreeable but we are waiting to hear from other manufacturers. In one case, all manufacturers are agreeable but we are waiting to hear from a key state government. In one case manufacturers have made an offer which is not acceptable to efficiency supporters and we have made suggestions on ways to improve the offer. We are waiting to hear from the manufacturers. At this point my best guess is that two or three of the products will proceed to a consensus agreement, but that we will not be able to reach consensus on one or two products.

Question 2. Would a collaborative process under the auspices of DOE be useful for setting consensus efficiency standards?

Response: For most of our negotiations we have found that more progress can be made in private than under the glare of a public process. Therefore, for most products, a collaborative process under the auspices of DOE would probably not be helpful. However, in some cases, such a process could be useful (e.g. just such a process was used to successfully negotiate ballast efficiency standards a few years ago). Therefore, we would recommend that DOE be open to leading collaborative processes in some cases, but that DOE not insist on leading processes when more private discussions can make more rapid progress. We also recommend that DOE review its rulemaking processes, so that when agreements are reached, DOE can expeditiously move to a final rule (assuming no objections from parties not involved in the consensus).

Question 3. Can I provide more information about a fuel savings goal of 1 million barrels per day including modifications of passenger vehicle test procedures?

Response: A goal of 1 million barrels per day savings relative to EIA projections could be reached by various combinations of oil-saving measures, some but not all of which apply to the transportation sector, which is responsible for over ⅔ of US oil consumption. In my testimony I mentioned three transportation measures that could contribute substantially to achieving that goal and also put us on a path toward far greater savings in later years. Our estimates of the savings of each, in an aggressive implementation timeframe, are shown below.

Oil Savings from Three Transportation Measures (million barrels per day)

	2013	2020
Make official fuel economy value equal test value (phase-in 2006-2010)	0.75	1.45
Establish feebates for cars and trucks (phase-in 2006-2013)	0.81	1.84
Establish fuel economy standards for heavy-duty truck engines and components (phase-in 2006-2015)	0.16	0.36

NB: Feebates and fixing test procedures and reporting are complementary; their benefits are not additive.

The recommendation concerning fuel economy testing and reporting requirements stems from the current discrepancy between the fuel economy values reported by manufacturers to determine compliance with standards, on the one hand, and real-world fuel economy performance, on the other. This discrepancy is already evident from the EPA fuel economy sticker displayed on new vehicles, which shows fuel economies roughly 15% lower than the official fuel economies for regulatory purposes. It is generally believed that this adjusted fuel economy is still too high, and that actual fuel economies are on average at least 20% below the official values. The savings shown in the table above would result from the phase-in, over the period 2006-2010, of a change to test procedures and reporting requirements that reflect real-world values. EPA is expected to initiate a rulemaking this year to address the need for accurate testing and labeling procedures. The discrepancy between test values and official fuel economy values would have to be addressed legislatively, however.

Question 4. Should Congress require the establishment of particular policies to meet an 1 million barrels per day savings goal? What is the role of the states?

Response: We suggest that Congress require and grant authority to the appropriate federal agencies to analyze and adopt a package of policies they have demonstrated will meet the target of 1 MBD in oil savings by 2013. The policies above would be good candidates for inclusion in that package, as would building code updates, efficiency standards for residential heaters, and efficiency improvements to industrial boilers, among other measures. At this point we are not recommending that Congress establish specific policies, but instead that Congress authorize these policies so that the Administration can pick the best mix of policies for reaching the stated goal.

A number of states are apparently interested in adopting measures to save oil and/or reduce greenhouse gas emissions absent sufficiently ambitious action at the federal level. In our experience, states are often the best places to test policies for later adoption nationally. We believe the merits of the measures discussed here are already evident, however, and in such cases implementation at the federal level is most effective and efficient. On the other hand, should Congress not be prepared to adopt policies of sufficient strength to bring meaningful oil savings, they should leave these measures for the states to implement as they see fit.

Question 5. How will efficiency provisions in the draft bill aid in reducing natural gas prices? How did we derive our savings estimates?

Response: To achieve the dramatic natural gas cost reductions noted in my testimony, the U.S. will need to reduce electricity and natural gas use by about 4-5% over the next five years. The provisions in the draft bill only bring us about one-third the way towards this goal, and therefore the impacts of these policies on natural gas prices will be more limited (while we have not explicitly analyzed the impacts of an economy-wide reduction of about 1.5% energy savings, we speculate that this savings might reduce prices on the order of about 10%). In order to reach the 4-5% savings threshold, we recommend that the provisions in the draft bill be augmented. Policies with particularly large savings include the following:

- Adding additional energy efficiency standards
- Establishing an Energy Efficiency Resource Standard
- Improving the energy efficiency tax credits from those in H.R. 6 along the lines outlined in my testimony
- Undertaking a *major* public information campaign on the benefits of energy efficiency and specific steps consumers and businesses can take.

Our savings estimates are based on computer spreadsheet calculations that use current data on energy use by end-use (primarily from EIA) and estimate how these patterns will change if specific policies are adopted. ACEEE is now preparing a paper that will provide revised estimates, and will document the key assumptions that underlie these estimates.

NATIONAL ASSOCIATION OF REGULATORY UTILITY COMMISSIONERS

March 14, 2005

The Honorable RALPH M. HALL
Chairman
Subcommittee on Energy and Air Quality
House of Representatives
Washington, D.C., 20515

DEAR MR. CHAIRMAN: Thank you for giving the National Association of Regulatory Utility Commissioners (NARUC) an opportunity to present our views at the hearing you held on February 10, 2005.

Per your letter dated February 28, 2005, please find below NARUC's responses to your questions. Unfortunately, President Marilyn Showalter is unable to provide you with her responses directly, due to the expiration of her term as a Commissioner on the Washington Utilities and Transportation Commission, which occurs tomorrow. Therefore, I will be replying on behalf of NARUC.

Question 1. NARUC says it supports FERC's policies leading to economically and environmentally efficient regional power markets. What are "environmentally efficient" markets?

Response: NARUC is supporting policies that promote markets that provide an opportunity for renewable resources, energy efficiency, and other demand response programs to compete with other resource options in a fair, equitable, and efficient manner.

Question 2. NARUC states data that is shared for reliability should also be shared with the States and the public to monitor for market abuse. Is the data that is currently shared for reliability purposes useful in a review for market power? What additional data, if any, would be needed for market power monitoring?

Response: In the past, many regional electric markets throughout the country experienced price spikes of unusual and unexpected proportions. These price spikes have led to curtailment or shutdown of operations of some large industrial customers and lead to increased prices for smaller commercial and residential customers. The high market price volatility has raised concerns about the integrity of the markets, leading to calls from numerous participants, consumers and policy makers for investigation and heightened monitoring of these markets by regulatory bodies.

Monitoring is necessary to either confirm that markets are functioning well or to determine whether or not there are flaws or market power abuse which could raise prices above competitive levels. In order to identify corrective policy options to assure the public of the competitiveness and efficiency of the developing wholesale electricity market and its prices, regulatory bodies need access to data such as production for generating plants, transmission path schedules and actual flows

State access to reliability data would be a necessary, but not a sufficient, way for States to begin monitoring wholesale markets. Reliability data displays how the grid is being operated and used. The other piece that is necessary is State access to wholesale transaction data. This information is reported quarterly to FERC causing a delay of 30 to 120 days. Additionally, the information being reported is not uniform and often hides "confidential" information. This situation should be rectified. Congress should consider requiring FERC to post all transmission and wholesale transaction data on bulletin boards State regulators can access.

To the extent data is already shared among market participants for purposes of reliability, delaying or withholding access to the data by regulators cannot be justified on the grounds it is commercially sensitive.

Question 3. NARUC states FERC should establish a merger review process that allows for effective State participation. How are States prevented today from effectively participating at FERC in merger review proceedings? Do States review change in control of generation assets located within their States?

Response: State commissions can be impaired, in some instances, in their ability to participate in FERC merger review proceedings as a result of the combination of State rules prohibiting prejudgment of State cases and the fact that State approval is also needed for utility mergers or similar proceedings. For example, in some States that have not restructured, applications for merger or joining an RTO are reviewed in proceedings on their own dockets. However, there may be situations, particularly in restructured States, where the same isn't true. Many States do review changes in the control of generation assets located within those States. If a utility wishes to transfer control over one or more of its generating units to another entity, State approval must be obtained before such a transfer can be effectuated.

Question 4. What is NARUC's position on "economic dispatch"? Should a State require a public utility meeting the power needs of its customers to use the most economical facilities available?

Response: NARUC is not aware of any traditionally-regulated State that doesn't require economic dispatch currently. For example, States generally require their utilities (at the risk of a cost disallowance) to dispatch their generating facilities in merit order, subject only to any transmission-related limitations. Moreover, the States expect utilities to purchase power if they can do so more cheaply than they can generate it. Any customer or generator that believes that a utility is not making the most efficient dispatch or power purchase decisions has the right to challenge the inclusion of the utility's costs in retail rates or to bring a complaint action alleging imprudence on the part of the utility.

Additionally, there are legitimate reasons why some States might choose not to require their utilities to purchase the power needed to serve native load in an organized market priced on the basis of generator bids, as is the case in some RTO operated markets. For example, a State may make the determination that the cost of this type of resource procurement plan might exceed the costs of procuring power using traditional economic dispatch methods. Therefore, this is an issue that ought to be resolved on a State by State basis allowing each State to determine the method in which retail electric service is provided within the borders of that State.

Question 5. Should States require competitive bidding before the acquisition or construction of additional generation by the local utility?

Response: Most States do, in fact, require utilities to conduct some sort of RFP process before constructing additional generation, although the rules under which such procurement processes are conducted vary from State to State. There are a wide variety of factors that a State might reasonably consider appropriate for use in evaluating a utility construction decision, with those factors varying from State to State. For example, one State might have concerns about the market risk associated with reliance on purchased power arrangements (particularly relatively short term ones) rather than self-build options. Similarly, a particular State might want to encourage the use of certain types of renewable generation and feel that a utility self-build option might better effectuate that State's policies that procurement on the open market. Finally, State economic development considerations can reasonably play a role in the resource procurement process as well. As a result, given the wide variety of policies that a State might reasonably attempt to implement, the imposition of federal resource procurement rules would be inappropriate.

Thank you for the opportunity to clarify some of the NARUC positions included in our testimony. We would be pleased to provide you and your staff with any additional information you may require.

Sincerely Yours,

CHARLES D. GRAY
Executive Director

cc: The Honorable Rick Boucher, Ranking Member,
Subcommittee on Energy and Air Quality

EDISON ELECTRIC INSTITUTE
March 14, 2005

The Honorable RALPH M. HALL
Chairman
Subcommittee on Energy and Air Quality
Committee on Energy and Commerce
U.S. House of Representatives
Washington DC, 20515-6115

DEAR CHAIRMAN HALL: Thank you for the opportunity to respond to additional questions for the record of the Subcommittee's hearing on the "Energy Policy Act of 2005: Ensuring Jobs for Our Future with Secure and Reliable Energy."

As I testified at the hearing on February 10, the Edison Electric Institute strongly supports enactment of comprehensive energy legislation substantially similar to the

H.R. 6 conference report from the 108th Congress, especially the electricity provisions, without substantive change. Enactment of the House discussion draft version of the Energy Policy Act of 2005 would certainly be consistent with that goal.

Thank you again for the opportunity to provide additional input for the committee hearing record. We look forward to working with you and your colleagues to promptly enact comprehensive energy legislation in the 109th Congress.

Sincerely,

THOMAS R. KUHN

Enclosure

cc: The Honorable Rick Boucher, Ranking Member
Subcommittee on Energy and Air Quality

EEI RESPONSES TO ADDITIONAL SUBCOMMITTEE QUESTIONS

Question 1. What role does hydropower serve in the Western electricity grid and, specifically, how the current hydro licensing process currently hinders, or might hinder, the ability to provide consumers with a reliable, reasonably-priced, supply of electricity?

Response: Hydropower is a critical resource for the western electricity grid. Throughout the West, total installed generating capacity is approximately 177,000 MW, of which a little less than 30 percent, or approximately 53,000 MW, is hydropower. In Washington, Oregon, and California, the role of hydropower is even greater, with approximately 42,500 MW of the total—102,000 MW installed generating capacity being hydropower. [U.S. Department of Energy (DOE) Energy Information Administration (EIA) Annual Electric Generator Report (EIA-860) 2003 data] The actual share of power generated from hydropower facilities may vary in any given year, however, as license conditions or the availability of water in drought years affect power production. Nevertheless, hydropower generation is a significant component of the generating mix by any calculation.

Beyond the numbers, hydropower plays an important role in the reliability and affordability of electricity. Because electricity is generated by the flow of water through turbines and without the thermal constraints of other generating technologies, hydropower possesses a quick start capability that enables power to be brought on line quickly, even following an outage. Absent license constraints, the ability to adjust flow levels quickly to increase or decrease power production also makes hydropower especially valuable and well-suited for peaking generation. Hydropower is also a renewable resource with significant air emissions benefits. Pumped storage and hydro facilities with reservoirs also provide a storage capacity that provides flexibility throughout the year and over the course of the day in power production.

The current hydro licensing process hinders the ability to use hydropower's unique characteristics to help provide reliable, reasonably-priced electricity. The Federal Power Act (FPA) requires the Federal Energy Regulatory Commission (FERC) to balance a variety of interests in making a license or license renewal decision. Over time, however, the interpretation of the mandatory conditioning authority provided to the federal resource and state water quality agencies has resulted in subjugation, rather than a harmonization, of these other interests to the dictates of those agencies. These agencies need not consider the power production impacts of their conditions or prescriptions, and they are not required to achieve their environmental protection goals in a way that reduces the impact to power production, flood control, or other values.

Minimum flow requirements, restrictions on ramping rates, a proliferation of on-site and off-site mitigation requirements and a host of other license conditions—some valid and necessary for environmental protection and some not—can reduce the amount of power any facility can generate or render projects uneconomical. In such a situation, when the owner of the facility decides to surrender the license or agrees to shut down a project in the face of pressure to remove some dam facilities, that renewable generating capacity can be permanently lost to the nation and must be replaced through power generated elsewhere. Recent replacement power has come from gas-fired generation.

The hydro licensing reform provisions of the House discussion draft energy bill will help hydropower to continue to serve its unique role by providing a process for requiring the federal resource agencies to consider alternative approaches to meeting their environmental objectives that will have fewer operational impacts on the facility. It does not change the numerous opportunities for stakeholder, state and tribal involvement in the licensing process, nor does it make any change in the environmental standards that FERC and the federal resource agencies are required to meet.

Question 2. Can you explain to the committee how the conference report provides significant help in removing disincentives that discourage investment in transmission and helps to strengthen the transmission infrastructure and enhance the benefits of competition for consumers?

Response: Provisions to enhance the transmission infrastructure that are contained in the H.R. 6 conference report are among the primary reasons for EEI's support for the conference report. These provisions are extremely critical to our industry to help ensure that the transmission grid remains reliable and capable of meeting the demands of competitive electricity markets. We strongly support their inclusion in any energy bill considered by the 109th Congress.

While investment in transmission systems has increased recently, with about $4 billion being spent annually, the bulk of the new transmission being built is to help serve local load and connect new generation facilities to the grid. The level of investment in long-distance, high-voltage wires, particularly to interconnect regions, has not kept pace with the growing demands being imposed on the system. Significantly, the number of circuit miles of high-voltage and extra-high-voltage transmission lines (188kV and above) owned or operated by shareholder-owned utilities has grown by only 2.5 percent annually since 1999. These are the so-called "trunkline" facilities that are so critical for moving electricity around and between regions of the country.

While there are many provisions in the energy bill that are designed to improve the transmission system, I want to focus on those of particular interest to EEI and its member companies:

First, the mandatory reliability provisions are essential to help strengthen transmission infrastructure and improve its operation. The reliability provision in the H.R. 6 conference report would establish a self-regulating reliability organization that would develop and enforce mandatory reliability rules on all market participants, with FERC oversight.

The H.R. 6 conference report also contains provisions to help facilitate the siting of needed transmission facilities. The siting provisions would grant FERC backstop siting authority for transmission projects in DOE-designated "national interest electric transmission corridors" if a state could not or would not grant the necessary permits within one year. The conference report also authorizes DOE to act as lead agency to coordinate all authorizations and environmental reviews required under federal laws to site facilities.

Even though transmission lines and natural gas pipelines serve essentially the same purpose—to move large amounts of energy across long distances—their siting processes are very different. Congress has granted interstate natural gas pipelines the authority to go to FERC for their siting permits and to exercise federal eminent domain. This authority was modeled after similar authority that Congress granted to hydroelectric power developers.

However, individual states currently have jurisdiction over whether and where to build new transmission lines. Each state may have different, even conflicting, requirements to site a line. When siting a new transmission line that crosses state borders, utilities must seek multiple state, county and local permits and approvals, often resulting in lengthy building delays. In the case of some transmission lines, it has taken literally a decade or more to gain these approvals.

Most state siting laws do not recognize the role new entities such as regional transmission organizations (RTOs) will play in transmission planning, nor do they specifically allow for the consideration of broader regional benefits of new transmission lines. By their very nature, RTOs will take a regional approach toward transmission expansion planning. But, if states consider only intrastate benefits and not regional benefits, they may have little choice under state law but to reject a proposed line, even if the benefits to the region are significant. In many cases, old state siting laws also fail to allow independent transmission companies—relatively new entities in electricity markets—to get the necessary permits to build transmission lines.

Transmission expansion also is highly vulnerable to public sentiment against building any infrastructure projects, expressed in the colorful acronyms NIMBY (not in my backyard), NOPE (not on planet Earth) and BANANA (build absolutely nothing anywhere near anyone). This sentiment is especially strong when a transmission line must be built through an area that believes the benefits of the new line will accrue to another area and not theirs.

If these trends continue, they will inevitably threaten the reliability of the bulk power system and undermine the consumer benefits of wholesale competition.

The transmission system is being asked to meet the same type of demands and obligations as natural gas pipelines. Natural gas pipeline expansion has been under the oversight of FERC for decades because it is composed of an interstate network. The transmission grid also has evolved into an interstate network, and our industry needs, at a minimum, the transmission siting reforms contained in the H.R. 6 conference report.

The provisions in the H.R. 6 conference report related to coordination of federal authorizations also are critical to our industry. The unnecessarily complicated, time-consuming and difficult multi-jurisdictional federal permitting process to site energy facilities, including authorizations for siting transmission lines across federal lands, is another major impediment to building new transmission. In some areas of the country, this is the principal impediment.

Problems with the federal permitting process include (1) a severely fragmented process, where each federal agency with potential jurisdiction has its own set of rules, timelines for action and processes for permitting; (2) the tendency by federal agencies to require multiple and duplicative environmental reviews; (3) a failure to coordinate with any state siting process; and (4) a lack of harmonized permit terms from one agency to the next.

The open non-discriminatory access provisions ("FERC lite") in the H.R. 6 conference report, while not as strong as we would prefer, also are essential to strengthen the transmission grid and enhance the benefits of competition for consumers. Government-owned utilities and electric cooperatives collectively own and operate about 32 percent of the nation's transmission system, but in some regions that figure is much higher. In the Pacific Northwest, the federal Bonneville Power Administration (BPA) alone owns and controls nearly three-quarters of the region's high-voltage transmission capacity. The entire state of Nebraska and most of Tennessee are served by non-jurisdictional utilities, yet they are integrated into a multi-state transmission grid.

These transmission owners are not subject to the same level of FERC jurisdiction over transmission that applies to shareholder-owned utilities. Under FERC's Order No. 888, FERC requires all shareholder-owned utilities to provide open transmission access to any third-party wholesale power seller.

According to a December 2002 GAO report, "Lessons Learned From Electricity Restructuring," because of FERC's lack of jurisdiction over government-owned utilities and electric cooperatives

> FERC has not been able to prescribe the same standards of open access to the transmission system. This situation, by limiting the degree to which market participants can make electricity transactions across these jurisdictions, will limit the ability of restructuring efforts to achieve a truly national competitive electricity system and, ultimately will reduce the potential benefits expected from restructuring.

Without the "FERC lite" open access transmission provisions in the energy bill, government-owned utilities and electric cooperatives that own significant portions of the transmission grid can refuse to provide open, non-discriminatory access to their transmission systems to other market participants. If this provision is not retained in an energy bill, the only ways to require these utilities to provide open access would be to request FERC to order them to do so on a case-by-case basis or to rely on very limited FERC reciprocity requirements. The case-by-case approach is time-consuming and cumbersome, resulting in only one market participant at a time gaining access to one particular nonjurisdictional utility's transmission system.

Another important transmission provision is the one authorizing federal utilities to join voluntarily an RTO or independent system operator (ISO). Because many of the federal utilities own significant amounts of transmission, their participation in regional transmission groups is critical to the success of those organizations and to regional transmission planning.

In addition, the native load service obligation provision is critical to ensure that load-serving entities have sufficient access to the transmission system to meet their service obligations to consumers. This assurance helps reduce uncertainty in electricity markets, and uncertainty in a highly capital-intensive industry is not conducive to investment.

Another critical transmission provision in the H.R. 6 conference report is the transmission infrastructure investment provision, requiring FERC to issue a rule reforming transmission rates to benefit consumers by reducing transmission congestion. This provision also helps to assure the recovery of all prudent costs of complying with mandatory reliability standards and provides additional incentives for RTO participation.

We believe opposition to the transmission infrastructure investment provision by other stakeholders is short-sighted. As we mentioned in our written testimony, according to a December 2001 FERC "Electric Transmission Constraint Study," transmission costs make up only 6 percent of the current average monthly electric bill for retail consumers. On the other hand, generation costs make up 74 percent of the average bill. By reducing transmission congestion, investments in new transmission will allow consumers easier access to lower cost generation.

FERC estimates that a $12.6 billion increase in transmission investment would add only 87 cents to an electric customer's average monthly bill. But, since increased transmission investment will help reduce congestion and enable lower cost power to reach consumers more easily, FERC anticipates that the net benefits to overall electric bills could be potentially quite large.

The voluntary transmission pricing plan language in the H.R. 6 conference report is an extremely important provision. This provision addresses the important principle of cost causation and ensures that transmission providers who are not currently members of RTOs or ISOs have the same pricing flexibility that FERC allows transmission providers in those organized markets. We address this provision more extensively in question #4.

We also believe that repealing PUHCA will help attract significant amounts of new investment capital to the industry. We strongly support the PUHCA provisions in the H.R. 6 conference report. By imposing limitations on investments in the regulated energy industry, PUHCA acts as a substantial impediment to new investment in energy infrastructure, keeping billions of dollars of new capital out of the industry. As a result, we believe that this outdated statute has contributed to the failure of the electricity infrastructure to keep pace with growing electricity demand and the development of regional wholesale markets.

Under PUHCA, a registered holding company must confine its operations to a "single integrated public utility system" (with certain exceptions) located in a "single area or region" of the country. This outdated "physical integration" requirement prevents utility companies from investing capital outside their geographic region, shutting off a valuable potential source of domestic capital investment in needed energy facilities and, ironically, fostering the very kind of concentration in regional energy markets that FERC is trying to reduce.

The H.R. 6 conference report contains provisions that would repeal PUHCA and transfer consumer protections to FERC and the states. These provisions are similar to PUHCA repeal language that has been included in every major electricity bill considered by Congress over the last decade, and which have been endorsed by every Administration—Republican and Democratic—since 1982. They should be included in the energy bill again this year.

Finally, the provision in the tax title of the H.R. 6 conference that provides for enhanced accelerated depreciation for electric transmission assets is an essential provision for our industry. While we appreciate that the tax provisions in the energy bill are under the jurisdiction of another committee, we believe strongly that the U.S. tax code should be amended to reduce the depreciable life for electric transmission assets from 20 to 15 years, similar to the tax treatment governing other major capital assets. Currently, transmission assets receive less favorable tax treatment than other critical infrastructure and technologies. This provision will be extremely valuable in encouraging greater investment in the transmission infrastructure.

Question 3. What is EEI's position on the Standard Market Design provision in the discussion draft? Should Congress be concerned about FERC's current SMA or market power policies? If so, why?

Response:

Standard Market Design

The Standard Market Design (SMD) provision (Section 1235) in the discussion draft is part of the overall compromise comprising the electricity title, which we support. While EEI has sought constructive solutions to the issues raised by FERC's SMD proposal in 2003, the sweeping proposal has caused significant concern for a number of EEI member companies and other stakeholders, especially in certain regions of the country. FERC's proposal is still pending, so those concerns remain unresolved.

EEI supports pursuing more effective wholesale markets throughout the United States because properly structured competitive wholesale markets benefit consumers. The SMD proposal does not provide sufficient emphasis on addressing the considerable differences which exist in regions around the nation, particularly in the Southeast and West, in the areas of planning, siting and resource adequacy.

For instance, the SMD proposal would confine current transmission owners to being the builders of last resort when it comes to transmission planning. EEI believes all options for building new transmission facilities, including current owners, should be preserved. We encouraged FERC to support all cost-effective options for getting transmission built, including integrated utilities, independent transmission companies, and merchant transmission entities.

The proposed SMD rule would affect important state interests, but it would provide an inadequate framework to foster essential state cooperation and input needed for regional institutions to work effectively. It is especially important to work closely with the states in the areas of regional planning and resource adequacy. The responsibilities imposed on utilities and state regulators by state law with regard to planning, adequacy of service and siting must be respected and state cooperation must be achieved.

SMA / Market Power

While the situation may not require legislation at this time, Congress should be concerned about FERC's current SMA and market power policies, and we urge Congress to exercise its oversight role to monitor these policies.

First, there is a growing conflict between FERC and state regulatory commission jurisdiction over the approval of generation resource procurement decisions made by jurisdictional utilities.

In many states, approval for a utility to buy a generation plant or purchase power depends on whether the state regulatory commission deems that the acquisition or purchase is consistent with a broad range of state public policy goals, including such areas as reliability, fuel diversity, economic development, risk management and environmental impacts.

However, where such a state-approved purchase is from a company not affiliated with the utility, FERC may reject the acquisition on the basis that the acquisition raises wholesale market power concerns under FPA Section 203, without taking into account important state considerations for approving the transaction. Similarly, where such a state-approved purchase is from an affiliate of the utility, FERC may reject the acquisition if the utility does not comply completely with new competitive solicitation guidelines that FERC established in 2004 in the Ameren case, even though some of the guidelines might clearly conflict with the resource procurement processes approved by state regulatory commissions. FERC's case-by-case approach for developing policy on resource procurement issues is creating substantial regulatory uncertainty and is affecting important investment decisions on infrastructure expansion.

Congress should therefore be concerned that this jurisdictional conflict, if not resolved, has the potential to negatively impact the reliability of electric service by disrupting the generation resource procurement process.

Second, last year FERC established an interim market-based rate approval process under Section 205 of the FPA that includes a new test for assessing the presence of generation market power. EEI is concerned that this new test does not adequately take into account the native load obligations of vertically integrated utilities serving retail customers. We are also concerned that it does not take into account actual market conditions. So we have proposed an additional test to the Commission that we believe accomplishes these goals.

Congress should be concerned that if FERC's new test is not modified significantly, there is the potential that the majority of non-RTO vertically integrated utilities that do not have market power will be excluded from participating through market-based rates in the competitive wholesale market. This could unnecessarily limit the liquidity of wholesale markets to the detriment of other market participants and their customers.

Question 4. What is EEI's position on the Voluntary Transmission Pricing Plans provisions in the discussion draft? How does this provision compare to FERC's current policy on transmission pricing plans to fairly allocate costs caused by the need to upgrade or construct transmission facilities? What changes, if any, would EEI suggest to these provisions?

Response: EEI supports the Voluntary Transmission Pricing Plans provisions (Section 1242) of the discussion draft and believes they are an integral part of the package of transmission investment incentives in the energy bill.

We believe that Section 1242 provides transmission providers the flexibility to propose various approaches to fund transmission construction; the provision expressly states that any pricing plan may contain a number of different methodologies, including direct assignment of costs, participant funding or rolled-in pricing. FERC has to find the pricing plan results in rates that are just and reasonable and not unduly discriminatory or preferential and that the transmission costs are assigned in a fair manner. And, the provision does not affect cost methodologies employed by an RTO or ISO authorized prior to the date of enactment of the provision. We believe this essentially grandfathers transmission pricing plans adopted by the RTOs in the Northeast, the Midwest ISO (MISO) and Southwest Power Pool (SPP).

With respect to the participant funding option, the provision assures that entities that cause transmission costs to be incurred will help bear their fair share of those costs. This principle is embodied in the "Framework for the Continuing Development of a Competitive Wholesale Market for the Benefit of Consumers" released at the January 2005 EEI Board of Directors meeting. That document contains several principles regarding transmission pricing and recognizes that pricing should "ensure that cost responsibility follows cost causation, minimize the potential for cost shifting and promote efficient siting of new transmission and generation facilities." We believe participant funding is, in appropriate situations, consistent with these principles. Obviously, the principles also assert that transmission pricing should assure full cost recovery by the transmitting utility.

As noted in our response to question #2 and also in our testimony, EEI supports many incentives for transmission investment in the energy bill, including accelerated depreciation for transmission, incentive pricing, FERC backstop siting authority, and reforms to the federal permitting process. Participant funding is an extremely important transmission incentive. We also recognize that other areas of the country may choose different approaches to fund transmission, and Section 1242 recognizes alternative funding proposals as well.

The Voluntary Transmission Pricing Plan provisions allow transmission providers outside of organized markets the same pricing flexibility currently allowed to RTOs and ISOs.

When a transmission provider must construct network upgrades to meet a request for transmission service or interconnection, FERC's policy has been to allow the transmission provider to charge customers the higher of embedded costs of transmission (with the cost of the network upgrades rolled in) or the incremental cost of the network upgrades, but not the sum of the two.

FERC, however, does allow RTOs and ISOs to directly assign the cost of new network facilities to a transmission customer that would not be in its transmission expansion plan "but for" the request for new transmission service by that transmission customer, provided that the transmission customer receives well-defined rights to use the transmission network in return.

Where a customer receives rights in exchange for direct cost assignment, and at the same time obtains access to the network in exchange for an embedded cost access fee, FERC has found that the customer is paying separate charges for separate services and that this does not constitute "and" pricing.

Section 1242 of the discussion draft extends this pricing flexibility that is currently only offered to RTOs and ISOs to all transmission providers. It protects native load customers from being assigned costs that would not be incurred "but for" a request for new transmission service. At the same time, it upholds the Commission's prohibition of "and" pricing by explicitly not requiring a party requesting new transmission service to pay both the incremental upgrade cost and a rolled-in price for transmission that includes the cost of the network upgrade. It also provides transmission rights, monetary credit, or other Commission-approved compensation.

EEI does not suggest any changes to Section 1242 or any other provision in the electricity title. As we have stated before, while we recognize that every stakeholder would probably change something in the electricity title, that title represents many years of negotiations and is a balanced compromise that should be included in any energy bill.

Section 1242 is well designed to provide pricing flexibility to all FERC jurisdictional transmission providers outside of RTOs and ISOs. It closely mirrors current Commission pricing policy applied to RTO and ISO transmission providers, and it upholds the Commission's prohibition on "and" pricing.

AMERICAN PUBLIC POWER ASSOCIATION RESPONSE FOR THE RECORD

Question 1: PUHCA encourages regionalization of markets by requiring the interconnection and integration of utility assets. FERC, the SEC, and all market experts support its repeal. Why should the PUHCA of 1935 not be repealed and replaced with a modernized law?

How does the proposed increased access to books and records by Federal and State regulators not offset the effect of PUHCA repeal?

With regard to PUHCA repeal, can you explain how consumers are better off keeping willing investors out of an industry that desperately needs new investment and infrastructure?

APPA Response: 1) The requirements that the Public Utility Holding Company Act imposes on registered holding companies, including that they operate in a discrete geographic region and that the operating utilities are integrated and interconnected, were intended to ensure effective regulation of multi-state utility holding companies. Despite the attention paid to utility restructuring and deregulation over the last decade, the fact remains that many utilities are regulated monopolies and most are able to exercise considerable market power. Effective regulation, therefore, continues to be necessary to protect consumers and investors.

PUHCA repeal debates have an argument *du jour* quality. Two decades ago, PUHCA repeal arguments were based on the need to allow utilities to diversify into non-utility businesses. A decade ago, partial repeal through the "exempt wholesale generator" (EWG) provision included in 1992's Energy Policy Act was based on the proposition that it would promote competition. Today, repeal is advocated based on the perceived need to enhance capital formation and support the creation of transmission companies. There has been as well a common thread running through these debates—that PUHCA is no longer required to protect investors or consumers.

Consider how support for the EWG exemption was characterized by SEC Commissioner Fleischman in testimony before the Senate Energy Committee on March 14, 1991.

> [T]he SEC can advise you, this morning, of its belief that adequate safeguards are provided, in the disclosure requirements under the securities laws administered by the SEC and in the market itself, for the protection of the interest of investors in the securities of every type of generating company and generating system... And the SEC can also advise you of its belief that the interest of consumers, generally, can be protected by other regulatory entities...
>
> Exempting wholesale power generators from the 1935 Act would remove unnecessary regulation and encourage competition in order to reduce the cost of electric power for consumers, and ultimately, reduce our dependence on foreign sources of energy.[1]

According to Commissioner Fleischman, nothing would go wrong if Congress were to exempt wholesale generators from PUHCA. In the intervening years, the litany of things that have gone wrong is startling. Over the past decade, utility holding companies have been able to issue misleading financial statements, manipulate affiliate transactions, and expand with no regard for consumer costs or welfare. As a result, investors have suffered substantial losses. Today, many troubled utility holding companies with failed or faltering EWG investments are facing a debt crisis of staggering proportions, and consumers of these holding companies' electric utility subsidiaries stand in line to pay the price.

PUHCA oversight, while designed to eliminate these very abuses and thereby protect investors and consumers, failed in the 1990s because PUHCA's protections had been significantly undermined by the EWG exemption. Further, what remained of PUHCA was bent, twisted, or simply ignored by the SEC.

The consequences of total PUHCA repeal are no longer a matter of speculation. To see what a world without PUHCA looks like, one needs to look only at the serious, adverse consequences of the partial PUHCA repeal in 1992. Congress must insist that consumers of monopolistic utility companies with the ability to exert market power over competitors and customers be provided the effective regulatory protection promised and, until recently, delivered by PUHCA.

The final question raised is why shouldn't PUHCA be repealed and replaced with a more modern law? APPA has been and remains open to modernization of PUHCA, as long as the important protections afforded consumers and investors are preserved. In our view, the repeal of PUHCA proposed in H.R. 6 amounted to an almost total repeal with no effort to modernize the law or preserve PUHCA's important protections.

APPA has done extensive research on the background of PUHCA and its implementation, which has resulted in our opposition to its repeal. In fact, APPA released a report in February 2003 entitled "The Public Utility Holding Company Act: Its Protections Are Needed Today More than Ever," that provides a detailed history of the Act. Should you wish to explore this issue further, the report may be accessed on APPA's website at: http://www.appanet.org/files/PDFs/PUHCA0203.pdf

a) Although APPA supports the increased access to books and records by federal and state regulators in the discussion draft, the provision is nonetheless inadequate to offset the full repeal of PUHCA. PUHCA guards against several types of potential holding company abuses. For example, while increased access to books and records would in theory allow regulators to identify holding company activities, such as inter-affiliate transactions that result in undue favoritism and self-dealing, repeal of the Act removes the limitations on these types of transactions, thereby leaving regulators no remedy once the transactions are identified. Furthermore, in the discussion draft, the access only goes to the operating utility, not the holding company, yet to truly understand affiliate and subsidiary transactions in order to fulfill their obligation to protect consumers, regulators must have unfettered access to all of the holding company books and records.

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[1] Edward H. Fleischman, Commissioner of the Securities and Exchange Commission, Oral and Written Statements, testimony before the Senate Committee on Energy and Natural Resources, March 14, 1991, published in the *Hearing Record for S. 341, National Energy Security Act of 1991,* by the U.S. Government Printing Office, 1991.

b) We do not believe PUHCA is an impediment to new investment in new infrastructure. PUHCA does limit the acquisition of existing utilities by holding companies. Repeal of PUHCA would not necessarily stimulate new investment in utility infrastructure. Instead, it would at best bring in new investors whose funds would be used to acquire utilities, not build them. Repeal would encourage procurement of existing utilities by domestic or foreign corporations that have little knowledge or understanding of the electric utility industry. However, the steady stream of revenue from these utilities' captive customer base makes them extremely attractive takeover targets. Electric utilities would simply become pawns on the chessboard of corporate acquisitions. Under PUHCA, utilities are not limited in their ability to build new generation, transmission or distribution within their service territories—and, the building of independent wholesale generation is not restricted.

There has been no lack of investment in power generation facilities in recent years. In fact, many APPA members are building or are considering proposals to build new power plants. The lack of new investment in new transmission infrastructure cannot be traced to PUHCA. The uncertainty involved in getting necessary approvals to site transmission projects is a major deterrent to investment, which is why APPA supports the siting provisions included in Section 1221 of the discussion draft. Another deterrent is the desire of vertically-integrated utilities with large generation facilities to protect their own generation from competition by limiting the availability of adequate transmission to their merchant generator competitors (please see the answer to question 3 below for an additional discussion about transmission infrastructure).

Question 2: APPA supports open access transmission rules yet appears to oppose or not support open nondiscriminatory access provisions applying to its members. Why doesn't APPA think Sec. 1231 of the discussion draft is necessary?

APPA Response: APPA was one of the strongest proponents of the amendments to the Energy Policy Act of 1992 that expanded FERC's authority to require all transmitting utilities, both publicly and privately owned, to provide transmission service to others. Since the act was passed, few if any requests have been made to FERC by parties seeking access to publicly owned transmission facilities. Further, most APPA members with transmission facilities have developed open access transmission tariffs as envisioned in FERC Order Nos. 888 and 889, under which they offer transmission services to others comparable to the service they provide to themselves and post the availability of transmission on their website. Based on this record, it does not appear that access to publicly owned transmission facilities is a problem.

In addition, we have watched FERC seek to expand its jurisdiction over publicly owned utilities in a number of instances in the recent past. Even the limited legislative expansion proposed in Section 1231 might be regarded as an invitation by FERC to push its jurisdictional reach.

To paraphrase my testimony presented to the Committee, APPA believes that Section 1231 is a solution in search of a problem, and unnecessarily subjects APPA members to increased FERC jurisdiction and associated costs. However, APPA has agreed to this language in previous iterations of the energy bill, and does not oppose its inclusion in the discussion draft.

Question 3: What specific suggestions does APPA have to "promote mid-course corrections" with respect to RTO policies?

APPA Response: In answering this question, we are drawing from the APPA document, "Restructuring at the Crossroads: FERC Electric Policy Reconsidered" that was released in December 2004. It should be noted that the mid-course corrections we recommend in the white paper require only minimal legislative action (federal backstop siting authority and the enhanced ability for FERC to assess penalties for market manipulation). We believe that FERC has enough existing authority under the FPA to implement the vast majority of our recommendations. Due to its length, we are not attaching this document. If you wish to review it, it may be found on our website at http://www.appanet.org/legislative/index.cfm?ItemNumber=10084&sn.ItemNumber=2064&sn.ItemNumber=2064&tn.ItemNumber=2065

As was noted in our testimony, public power systems in RTO regions are experiencing across-the-board problems with increasing RTO costs, unresponsive governance and over reliance on market mechanisms. APPA members served by RTOs are often unable to obtain long term transmission service rights at a known and reasonable cost. These problems impair public power's ability to maintain existing and make new, long term generation resource arrangements necessary to provide reliable and affordable electric service to their consumers now and into the future.

In addition, regional differences and the largely negative experiences of public power systems with RTOs have prompted public power utilities in other regions to oppose RTO expansion. Instead, they are pursing more cost-effective means to promote infrastructure expansion and market efficiency and to provide open access transmission service.

APPA believes that FERC should embrace the following general policies in both RTO and non-RTO regions:

- Foster adequate investment in transmission and generation infrastructure;
- Recognize and respect regional industry differences and preferences;
- Encourage cost-effective and not overly complex regional solutions;
- Support rational long-term generation resource arrangements that are in turn supported by dependable, long-term transmission service provided at just and reasonable rates,
- Foster well-functioning wholesale electric markets; and
- Ensure that FERC jurisdictional sellers of power charge "just and reasonable" rates.

In existing FERC jurisdictional RTOs, APPA recommends the following "mid-course" corrections. FERC should ensure that:

- Load-serving utilities have the right to retain existing transmission rights arising out of ownership, existing contracts or service agreements under whatever market design is approved by FERC, and the ability in the future to obtain new, long-term transmission rights at a known and reasonable cost in order to achieve reasonable delivered cost certainty;
- Meaningful mechanisms are provided to get adequate transmission infrastructure built in a timely fashion, including mechanisms that encourage joint participation in development of new transmission facilities by all load serving entities within the region, instead of relying on incentive rates of return and accelerated depreciation and the presumed price signals of Locational Marginal Pricing and Financial Transmission Rights;
- A pricing methodology for transmission that produces reasonably certain and stable prices over the long term in order to support new generation construction and long-term power supply contracts;
- RTOs are fully accountable to stakeholders and the public for their costs and decisions;
- RTO governance is accountable to electric consumers' interests;
- The region encompassed within the RTO footprint makes sense from a commercial and reliability perspective; and
- Through their operations and policies, that RTOs bring real, identifiable net cost savings to electric consumers.

Additionally, APPA believes that FERC should respect the considerable regional diversity that exists throughout the country and should embrace regional alternatives developed within regions that do not have and do not wish to have RTOs by:

- Encouraging practices and institutions that meet the needs of specific regions;
- Enabling open regional transmission planning through means other than RTOs;
- Encouraging joint ownership of transmission and generation that supports long-term power supply planning while also helping to limit market power;
- Addressing remaining residual undue discrimination in transmission access by focusing on clarifying and enforcing open access rules;
- Addressing concerns of network service customers by vigorously enforcing the joint planning and transmission construction obligations of FERC-jurisdictional transmission owners under their existing Open Access Transmission Tariffs.

APPA has been heartened by recent FERC initiatives and statements by FERC Commissioners that seem to indicate the Commissioners share some of APPA's concerns. APPA intends to continue to advocate its views before the Commission, and has some hope that its members' concerns will be meaningfully addressed.

Question 4: Does APPA have any recommendations concerning FERC's current SMA policy?

APPA Response: By way of clarification, FERC's current test for assessing the generation market power of public utilities seeking market-based rate authority has changed from the "Supply Margin Assessment" (SMA) test first proposed in the fall of 2003. FERC is now employing on an interim basis two generation market power screens, the "Pivotal Supplier" screen and the "Market Share" screen. FERC is also examining all aspects of its market-based rate policy in a rulemaking docket, Docket No. RM04-7-000.

The ability of FERC-regulated public utilities to sell power at market-based rates under the FPA is a privilege, not a right. It is not FERC's mission to ensure that its market-based rate regime benefits the sellers (and the financial institutions that have lent money to them). Instead, FERC's market-based rate policies must benefit consumers and their communities by ensuring they are charged only "just and reasonable" rates, as Congress intended when it enacted the FPA.

Many small APPA members are facing very serious threats to their viability because of lack of availability of long-term firm transmission service at just and reasonable rates and increasing generation consolidation. These systems get few if any bids from suppliers, are often unable to obtain transmission to reach alternative sources of power, and are faced with dramatic price increases from local suppliers with significant market power.

APPA member experience demonstrates that merely imposing "global" generic conditions (such as RTO participation) on market-based rate authorizations may have substantial unintended consequences, require years to put in place, and may or may not address the underlying problems (*e.g.*, generation market dominance compounded by a dearth of long-term firm transmission capacity to obtain access to competitive suppliers). APPA believes that lack of competitive conditions must be addressed through a new market-based rate policy at FERC that ensures just and reasonable wholesale rates at all times. It is participating actively in Docket No. RM04-7-000 to achieve this end. APPA's filings to date in Docket No. RM04-7-000 are available on APPA's website, www.appanet.org.

Question 5: Please provide legislative language consistent with APPA's suggestions to the Native Load Service Obligations of Sec. 1236 of the discussion draft.

APPA Response: APPA is not yet prepared to offer legislative language on this section to the Subcommittee, but we are working with our members to provide changes that are consistent with the suggestions we made in our testimony. A major concern of APPA's members worth reiterating here is that while Section 1236 addresses the preservation of existing transmission rights needed for utilities to meet their current service obligations, it is silent on their ability to obtain new, long-term transmission rights. Yet future long-term rights and predictable transmission rates are critical to meeting future long-term obligations to their loads. They are equally critical to the development of new renewable generation resources, particularly wind, and new base load generation, which generally must be built far from load centers.

Question 6: In your testimony you state that you recommend the deletion of the sanctity of contract provision of this bill. Doesn't this provision benefit both ways? Wouldn't there be times when public power systems has [sic?] a contract and would not want the contracting IOU to break out of it? Also, wouldn't this provision provide a clear cut standard? Without it, isn't it true that any litigation would have to start with establishing a standard by which the contract is evaluated?

APPA Response: We recognize the Subcommittee's point that in certain cases, public power entities could be disadvantaged by Commission abrogation of their contacts using the just and reasonable standard of contract review. But the more pressing issue for most public power entities is that of unequal bargaining power in the negotiations leading up to the execution of a contract. As we delineate in our testimony, where two parties to a contract do not have equal bargaining power, the stronger party could insist that the contract be silent on the terms of review, resulting in the application of the more stringent Mobile-Sierra "public interest" standard by default in any subsequent litigation regarding the contract. Public power systems are frequently the weaker of the two parties in such bargaining situations for the reasons discussed above in response to questions one, three and four. Because they have an absolute obligation to meet the needs of their customers, and often have only a limited number of contractual options (especially when obtaining transmission service), they may have little choice but to accept a contract that is contrary to their interest in terms of the standard of review, not through legitimate negotiations with the other party, but by congressional fiat. Through the application of this proposed provision, they could well be deprived of the protection of the "just and reasonable" standard to which they should and otherwise would be entitled under the FPA. In essence, this provision substantially undermines the "just and reasonable" standard itself--one of the most fundamental consumer protection provisions of the Act. In other words, we believe that the "clear cut" standard of review for contracts subject to the Commission's jurisdiction should be the just and reasonable standard.

While this provision would eliminate litigation over which standard of review to use in reviewing contract terms, the same certainty would occur were the section to provide that the contract terms should be reviewed pursuant to the "just and reasonable" standard unless the contract provides otherwise. We would be pleased to support this section if itwere so modified, however such a change would certainly result in strong opposition from those who would stand to benefit from the section as currently drafted. Therefore, we believe the parties to contracts, not the Congress, should determine which standard of review should be used, and when they do not address this in their contracts, the issue will then be decided by the Commission or the courts.

We therefore recommend that this provision be deleted.

Question 7: In your statement, you urge Congress to explore avenues to encourage joint ownership of new transmission facilities by all load-serving entities in a region, be they public or private. This would entice new investment into electric infrastructure, which APPA is strongly in favor of. However, to do this most efficiently would require the repeal of PUHCA. How do you reconcile your desire for increased investment in this manner while discouraging the repeal of PUHCA?

APPA Response: As discussed above, we do not believe that PUHCA is an impediment to transmission investment. And PUHCA is certainly not an impediment to public power investment in, and joint ownership of, new transmission facilities. Joint transmission ownership arrangements exist today in many states and regions. To expand upon our testimony with regard to joint ownership of transmission facilities, we believe that it is a structural solution that can address many of the access-related issues that RTOs were intended to address. Proportional ownership by those load-serving entities providing service in the region is an effective means to mitigate the transmission market power of utilities seeking market-based rate authority from FERC. If the responsibility for building and owning the transmission grid is spread more broadly among entities serving loads in a region, then joint transmission planning will be facilitated, simply because there are more participants at the planning table. If network customers of a dominant regional transmission provider are encouraged to buy into their load ratio share of the transmission system, transmission usage and ownership will be more closely aligned, and the frictions between transmission-dependent utilities and transmission owners can be reduced.

Public power utilities have participated in jointly-owned transmission arrangements for many years. One model of joint ownership that has worked for public power is investment in a transmission-only company. There are two transmission-only companies that are partially owned by public power utilities. These are the American Transmission Company and the Vermont Electric Power Company. A second model is ownership in a shared system. In shared or joint transmission systems, two or more load-serving utilities combine their transmission facilities into a single system. Examples of public power participation in shared transmission systems are found in Indiana, Georgia, Minnesota, and the upper Midwest region.

Besides the backstop federal siting authority included in the discussion draft, another way to encourage investment in transmission facilities, including increased joint ownership of transmission facilities, is to address the issue of long-term transmission rights.

We are encouraged by FERC Commissioner Kelly's comments to the Committee on the issue of joint transmission ownership, dated February 15, 2005: "Electricity legislation should include a 'Sense of Congress' to allow the Commission to encourage grid investment through stand-alone transmission companies or by developing inclusive, joint transmission systems that enable all utilities in an area to participate."

Question 8: Why does APPA consider the Voluntary Transmission Pricing Plans of Sec. 1242 mandatory? Please comment on such plans being subject to FERC's just and reasonable authority?

APPA Response: Although Section 1242 is attractively titled "Voluntary Transmission Pricing," in practice the Commission would be required to accept the transmission pricing methodology proposed by the private transmission owner for new transmission not required for reliability purposes. FERC may reject the methodology only if it finds it will result in unjust and unreasonable rates. Although the rates charged may be just and reasonable, the allocation of all costs to a specific party, as happens under the "participant funding" methodology, may be inappropriate.

APPA is not opposed to participant funding per se. We think that FERC's existing authority to determine appropriate transmission rate design and cost allocation can best assure that the "right" customers, i.e. those who benefit from a specific transmission upgrade, pay for needed modifications, even if the right customers are located in a neighboring state. This is especially so given that the customers that might "benefit" from a specific transmission upgrade may well change over time, as transmission system usage patterns shift. This flexibility is essential to ensure timely improvement to the weak U.S. transmission infrastructure, and to allow regional consideration of appropriate methods for financing and assigning costs of specific projects, in light of the benefits provided to specific customers and to the overall region.

It is clear from the Chairman's questions that he is interested in promoting a robust transmission infrastructure. APPA shares this goal, but firmly believes that Section 1242 would in fact do the opposite by requiring FERC to approve proposals forcing transmission customers who have requested service to bear 100 percent of the costs of the upgrade, even if others—in fact, the entire region—benefit from the upgrade. Only the very largest utilities could afford to undertake such bulk transmission upgrades, but these utilities often benefit from an undersized grid that protects their generation from competition. In contrast, regional transmission planning and shared transmission ownership would promote robust transmission infrastructure as we have also noted in our response to questions three and seven above.

Response for the Record by Ed Hansen, General Manager, Snohomish County Public Utility District,

Question 1. LPPC appears to support language that would require you to provide transmission service to others on the same terms and conditions you provide yourself. Can you describe the service you provide yourselves and the service you would then provide to others under this language?

Response: LPPC supports open-access transmission. A statutory requirement to require public power systems to provide transmission service on non-rate terms and conditions that are comparable to those under which the unregulated transmitting utility provides service to itself would be acceptable to LPPC. This codifies the current comparability standard that non-jurisdictional utilities must meet under the requirements of FERC Order 888 in order to receive service from jurisdictional utilities. We believe that the core requirement in providing non-discriminatory open access transmission service is providing service comparable to what we provide ourselves.

Generally speaking, public power systems provide the following type of transmission service to themselves: (1) service necessary to serve native load within our service territory; (2) service necessary to bring power into our service territories to serve our native load; and (3) service to transport surplus power under contract or sale to other utilities outside of our service territory. We would provide similar service, to the extent of available transmission capacity, to others on request.

Question 2. Your testimony states that public power is "unique" because of your service obligations, non-profit status, etc. What obligation do you have to your consumers to procure for them the lowest priced power you can? Where does that obligation come from?

Response: Public power systems are owned by the communities we serve, not by investors. We are not-for-profit entities, which does make us different. Public power systems exist for a variety of reasons and were often created in response to specific concerns. These systems are usually established by state law and are obligated, again generally by state law, to provide electric service to their customers. Additional obligations are imposed by the governing board of a public power system—which can be a city council or separately elected or appointed utility board.

The obligation to serve comes from a variety of sources, depending on the governance structure and creation of the particular public power system. In some instances, the obligation is imposed by the organic statute that created the system. In others, that obligation was created by the state legislature in other legislation. In other situations, a county or municipal government may impose the requirement. The obligation to serve our customers and provide electricity to them means that we are required to provide reliable service at the lowest reasonable rate. This differs from a requirement to purchase the lowest priced power and is one reason that many LPPC members build the generation and transmission to serve their native load customers—in order to ensure reliable service.

A wide variety of procurement requirements, based on state and local law, are also imposed on public power systems. This affects how and when we purchase power off-system.

Question 3. What obligation do you have to procure the highest priced you can for your power? What is the benefit for procuring a high price for your power? Where would those revenues go? Isn't it in your interests to secure the highest price you can for your power while securing the lowest price for your citizens? How, then, are you different from a regulated utility in that respect?

Response: Most LPPC member systems have built their transmission and generation systems specifically to serve their customer base—existing and reasonably projected. Since we have an obligation to first serve our customers, all available resources go first to accomplishing that objective. Power is sold and surplus transmission made available only if it is surplus to those needs. We do, in some instances, have surplus power since demand is fluid and will fluctuate. In order to efficiently operate and use the capacity of our generation facilities, we will make off-system sales or sales into the wholesale market. The market rules and price will generally impact the price received.

However, the states and municipalities may also impose various requirements vis-à-vis any power sales. In so far as we are selling power within our service territory, those rates are set by a variety of means—again, either by the state legislature, the local government, or the utility's governing board. Surplus power sales are, similarly, subject to requirements by the state, municipality, county, or our governing board. While the wholesale market does sometimes deliver a price above our retail rates, this is not always the case.

Unlike investor-owned utilities, public power systems continue to be constrained by IRS "private use rules" from making wholesale sales to non-governmental entities using facilities financed with tax-exempt bonds. By way of background, public power systems have no practical source of external financing other than the municipal debt markets. Unlike private companies, public entities cannot issue stock. The current private use rules limit the extent to which state and local governmental units that own generation financed by tax-exempt bonds are allowed to let non-governmental entities use those facilities. The rules provide that no more than the lesser of 10 per cent, or $15 million, of power generated by a power plant financed with tax-exempt debt may be sold to a private entity under a customer-specific contract. Violation of these private use rules results in loss of tax-exempt status for the bonds (in some cases retroactively to the date of issuance).

What these limitations mean in practice is that public power systems can build generation with tax exempt financing to serve their own customers and other public power systems but not the wider wholesale market.

In so far as we are able to sell surplus power in the market, generally, the revenues in excess of cost are used to cover operating costs, pay down debt—generally relating to generation or transmission facilities—or contributed to the state or local government as a "payment in lieu of taxes"—which is sometimes mandated by statute.

FEDERAL ENERGY REGULATORY COMMISSION
March 15, 2005

The Honorable RALPH M. HALL
Chairman
Subcommittee on Energy and Air Quality
Committee on Energy and Commerce
U.S. House of Representatives
Washington, D.C. 20515

Re: Federal Energy Legislation

DEAR MR. CHAIRMAN: Thank you for the opportunity to appear before the Subcommittee on Energy and Air Quality on February 10, 2005, to present testimony regarding the Discussion Draft of the Energy Policy Act of 2005: Ensuring Jobs for Our Future with Secure and Reliable Energy.

Your letter dated February 28, 2005 enclosed several questions by Members to supplement the hearing record. I have enclosed my responses. If you need additional information, please do not hesitate to let me know.

Sincerely,

CYNTHIA A. MARLETTE
General Counsel

Enclosure

cc: The Honorable Rick Boucher, Ranking Member
Subcommittee on Energy and Air Quality

Question 1: Section 1241 of the bill would authorize and require FERC to do a rulemaking on transmission incentive-based and performance-based rates. Do you believe that there is too much congestion at certain transmission bottlenecks in various parts of the country? If so, do you agree that incentive and performance-based rates are an appropriate vehicle for encouraging investment in new transmission to relieve this congestion?

Response: Yes, there is too much congestion at certain transmission bottlenecks on the grid. Some transmission constraints create fairly small local load pockets that require very expensive generation resources to meet load. These load pockets typically cover urban areas. Many are well known—for example, New York City, Long Island, Boston, parts of Connecticut, and the San Francisco Bay Area. However, there are other current and future load pockets around the country, including parts of northern Virginia, New Orleans, and various load centers in the Southwest Power Pool (SPP).

Other constraints are more regional in scope. They include:

- **From the Midwest to the Mid-Atlantic.** Congestion on these paths prevents cheaper Midwestern power from reaching the East Coast.
- **From the Midwest to the Tennessee Valley Authority (TVA).** The lack of strong connection between these two regions prevents Midwestern power from reaching markets farther south.
- **From TVA and the Southern Companies into Entergy.** This transmission constraint prevents power from reaching Entergy's service territory.
- **Into Florida.** The lack of transmission from the Southern Companies into Florida is a long-standing constraint.

In response to the second part of your question, I agree that incentive and performance-based rates are an appropriate vehicle for encouraging investment in new transmission to relieve this congestion. By enacting section 1241 of the Discussion Draft, the Congress could provide greater certainty to investors and thus encourage quicker, appropriate investments in grid improvements.

Question 2: Do you believe that section 1241 will help the Commission to avoid counter-productive legal challenges to its authority to allow incentive and performance rates?

Response: Yes. While I believe the Federal Energy Regulatory Commission (Commission or FERC) currently has adequate authority to provide transmission incentives, the enactment of section 1241 would lay to rest any potential legal arguments that the Commission does not have authority to provide transmission incentives.

Question 3: Is FERC taking steps to address any electricity supply shortages that may occur in the West either this summer or in the next few years?

Response: Yes. For example, the Commission has encouraged the development of additional transmission and generation resources by: (1) offering financial incentives such as a 13.5 percent rate of return for TransElect's investment in a project to increase the transfer capacity of Path 15, the major intertie between northern and southern California (a project which was completed on time and under budget, and became operational in December 2004); and (2) approving proposals for new generation resources such as Southern California Edison's Mountainview generating project, which will provide 1,054 megawatts of capacity. Further, the Commission continues to work with the California Independent System Operator (CAISO), market participants and California governmental entities to reform and restructure California wholesale electricity markets to increase their efficiency and reliability.

With respect to other parts of the West, the Commission approved an innovative rate and tariff proposal by Arizona Public Service Company that allowed the construction of a new Hassayampa switchyard and combined its operations with those of Palo Verde, effectively creating an energy trading hub. By allowing flexible access to markets without additional transmission charges, these changes allow and encourage the development of additional generation resources.

Finally, the Commission has taken steps to encourage development of adequate interstate natural gas pipeline and liquefied natural gas (LNG) resources to ensure supply and service reliability to all natural gas customers. For example, the Commission has authorized the construction and operation of a number of major pipeline system expansions in the West over the past several years, including Northwest Pipeline Corporation, Kern River Gas Transmission Company, Transwestern Pipeline Company and El Paso Natural Gas Company. The bulk of these system expansions were designed to serve natural gas-fired electric generation projects as well as other growing demands for natural gas.

Question 4: What is the current status of FERC's SMD proposal?

Response: Following ten months of public workshops and conferences on the questions of how to prevent market manipulation and market power abuses, promote new transmission construction and capture competitive efficiencies for customers, the Commission issued a proposed rule on *Remedying Undue Discrimination Through Open Access Transmission Service and a Standard Electricity Market Design* in July 2002. This proposed rule was issued to remedy the types of undue discrimination and market power abuse that have occurred in the power industry since the adoption of Order No. 888 in 1996.

In response to comments on the proposed rule, in April 2003, the Commission issued the *Wholesale Power Market Platform White Paper (White Paper)*. The substance of the White Paper has been reflected in Commission policy over the past two years.

Today, utilities encompassing approximately 69 percent of the nation's economy have formed or joined Regional Transmission Organizations (RTOs) or Independent System Operators (ISOs) consistent with the Commission's guidance. In each region, all market participants are working together to address the issues of market manipulation and market power abuse, the expansion of the transmission system and competitive efficiencies as spelled out in the White Paper. In the remaining parts of the country, the Commission is using traditional regulatory tools to fulfill its statutory mandates. For those reasons, the Commission is no longer working on the proposed rulemaking but is, instead, focusing on the individual markets and utilities to ensure that appropriate regional solutions are pursued.

Question 5: In your statement FERC suggested adding authority for the ERO to order the construction of new transmission in certain circumstances. Are you aware of any specific instances where this authority could have been used, i.e., where transmission was needed but not built, to improve system reliability?

Response: One example is the Arrowhead-Weston project, which was announced on April 15, 1999. This line is intended to be built through a partnership between Wisconsin's American Transmission Company (ATC) and Minnesota Power. Although ATC and Minnesota Power have expended significant effort to bring this line to construction, it has been repeatedly delayed by local opponents and counties over siting issues. Most recently, on February 3, 2005, the Douglas County Board voted “no” for the line to be sited on public land.

The Arrowhead-Weston line would strengthen the regional transmission system, reducing its vulnerability to disturbances. In June 1997, through a series of unique circumstances, power flows on the transmission system in Wisconsin were interrupted. This prompted extensive studies of the system's inadequacies, and the need for this project was reinforced in June 1998 when several Canadian provinces and several Midwestern states came close to a large-scale, regional blackout. According to testimony presented to the Public Service Commission of Wisconsin by ATC, all of these studies consistently showed that the transmission system needs reinforcement and the Arrowhead-Weston Project would resolve many of Wisconsin's most critical transmission problems.

In this instance, FERC backstop authority to site this transmission line if the Electricity Reliability Organization required it to be built for reliability would serve the reliability interests of several Midwestern states and parts of Canada.

Question 6: The bill would increase civil penalties that FERC could impose in Section II of the FPA. You recommend that these increased civil penalties also be applied to Section III of the FPA, which addresses Procedural and Administrative Provisions. Why is this civil penalty authority needed for administrative and procedural matters?

Response: There are two principal concerns. First, under sections 301(a) and (b) contained in Part III of the Federal Power Act (FPA), the Commission has authority to request that entities provide information, documents and other materials during investigations and audits. However, under the existing statutory scheme, without applicable civil penalties, entities that are undergoing an audit face no direct consequences for failure to comply with requests by the Commission for information, documents and other materials.

Second, while Part III of the FPA primarily covers administrative requirements, it also covers important substantive requirements involving interlocking directorates and paying dividends from funds properly included in a capital account. For example, FPA—section 305 prohibits individuals from holding certain interlocking directorates without obtaining prior authorization from the Commission. The purpose of the provision is to prevent conflicts of interest and the Commission may authorize such interlocking directorates only if there would be no adverse effect on public or private interests. However, the Commission has no civil penalty remedy for persons that fail to obtain Commission approval to hold an interlocking directorate or otherwise violate the provision or orders thereunder.

Question 7: In your statement FERC discusses the progress made thus far on price transparency in the electric and gas markets and makes several recommendations regarding price reporting.

a. FERC currently requires the electronic filing of quarterly transaction reports. Non-governmental agencies voluntarily report much of the same information contained in FERC's quarterly reports on a daily basis. Based on FERC's experience monitoring these markets, how successful is the quarterly reporting system? What specific authority, if any, does FERC need to require timely reporting of electric and gas transactions?

Response: The electronic filing of quarterly reports applies only to electric transactions and only to wholesale sales by jurisdictional public utilities. The Commission designed the Electric Quarterly Report (EQR) to fulfill the statutory requirement under section 205(c) that "every public utility shall file with the Commission—schedules showing all rates and charges for any transmission or sale subject to the jurisdiction of the Commission." The details and quantity of the information collected in the EQR are significantly different from the survey data reported voluntarily to price index developers.

The EQR is an after-the-fact filing of the previous calendar quarter's jurisdictional contracts and transactions. The Commission posts submitted data on its website for public access. The Commission does not convert the data into weighted average prices—functions routinely performed by price index publishers.

To require routine timely reporting of both electric and natural gas transactions and obtain a complete picture of the market, the Commission would need additional authority. First, the Commission would need authority to collect, on a routine basis, sales and purchase information from all wholesale sellers of electric energy, including governmental entities (such as power marketing agencies and municipal utilities) and electric power cooperatives. Second, the Commission would need additional authority to require submission by all wholesale sellers of natural gas, given the substantial number of transactions now exempt from the Commission's Natural Gas Act (NGA) jurisdiction. It is important to point out, however, that any extension of the Commission's FPA or NGA information collection authority to entities that are not currently subject to the Commission's comprehensive regulatory authority would *not* result in such entities becoming jurisdictional for any other purposes. The legislative text contained in Chairman Wood's February 14, 2005 response to Congressman Dingell would address the authorities needed.

b. FERC suggests the framework for market transparency should be the same for both the electric and gas markets. Why should there be no difference? Should the statutory provisions be the same, provided changes are made as FERC suggested in its statement?

Response: The Commission's information collection authority would be less confusing if the same general framework were contained in both the FPA and NGA. Also, the most consistent result would be achieved if the market transparency provisions of each statute were as similar as possible. The goal and authorities should be the same, and differences should be considered only to the extent necessitated by the different natures of the two commodities.

c. You state that FERC should have the tools to step in and require reporting if there is a problem. Please describe the specific tools FERC believes it needs.

Response: If voluntary price reporting is not successful, the Commission should have the authority to require reporting by all market participants, subject to appropriate rules. The authority should extend to both sellers and buyers in wholesale energy transactions. In addition, the Commission should be given the authority to rely on a non-governmental entity to perform the tasks of collecting, screening, calculating, and disseminating price information to market participants, along with a means of generating the revenue necessary to support such functions.

d. Why shouldn't Congress grant exceptions to the gas reporting requirements? Aren't there sufficiently small pipeline operators who may trade rarely, if ever, in transactional amounts to affect the markets?

Response: Exceptions for small sales or purchases of natural gas would be better dealt with in rules issued by the Commission than in legislation, so that the exceptions can be broadened or narrowed more flexibly in response to future circumstances. The Commission has been quite responsive to these sorts of requests in developing regulations.

e. FERC suggests Congress consider a private entity for the electric and gas markets reporting function. What are the pros and cons of allowing a private entity to compile this data?

Response: Independent, non-governmental entities are often the best choice to perform specific technical functions in market environments. In particular, independent non-governmental entities prove effective when they provide a range of benefits to market participants under government oversight.

The "pros" of making use of an independent non-governmental entity include: (1) the customer credibility of an independent entity; (2) self-governance under rules well understood by participants and by the Commission; (3) the efficient ability to collect, screen, process, and disseminate an enormous volume of data daily; and (4) the ability to finance operations from fees for access to the price data produced from market participants, interested consultants and analysts, and governmental agencies with oversight responsibilities.

"Cons" might include (1) less credibility because the collecting entity is not a governmental agency and (2) possible limitations on regular Commission access to transaction data because of confidentiality agreements with voluntary participants. The first possible "con" could be remedied through an effective governance structure designed to enhance credibility across industry suppliers, customers and resellers. The second could be managed through careful design, in advance, of Commission/entity relationships. Any solution would need to deal with these potential issues effectively.

f. FERC offers four recommendations regarding natural gas reporting. Could you explain the rationale behind (the pros and cons) each of the four recommendations?

Response: The first recommendation was that statutory authority should permit, but not require, an electronic price reporting system. The industry has made substantial improvements in all facets of price discovery under the guidance of the Commission's July 2003 Policy Statement. *Policy Statement on Natural Gas and Electric Price Indices,* 104 FERC ¶61,121 (2003). If this progress continues, there may be no need for a mandatory price reporting program. If, however, the current voluntary system proves to be inadequate in the future, the Commission should have the authority to establish mandatory price reporting.

The second recommendation was that the Commission should be able to require all market participants to provide price information, subject to appropriate confidentiality protection. Under the current voluntary price discovery system, price information is supplied to independent price index developers both from companies subject to the Commission's jurisdiction and from companies outside the Commission's jurisdiction. If a mandatory reporting system is required in the future, the Commission should be able to require that all participants, including both sellers and buyers, contribute transaction data. Otherwise, the Commission will not have a comprehensive understanding of what is going on in the market-place.

The third recommendation was that the Commission be able to rely on external commercial companies to collect and publish price information. This is the independent, non-governmental entity as discussed in response to question 7e.

The fourth recommendation is that the savings clause referring to the Commodity Futures Trading Commission (CFTC) should be modified so as not to inadvertently limit the Commission's existing authority to conduct investigations. Under section 307 of the FPA and section 14 of the NGA, the Commission currently has broad authority to obtain information from persons, or to subpoena witnesses, if relevant to an investigation under the statutes. The CFTC savings clause, as currently worded, could be construed as precluding the Commission from exercising its statutory authority to obtain information directly from any entity if that information is relevant to the FERC investigation. Any savings clause for the CFTC should make clear that there is no change to the Commission's existing broad authority to collect information directly from entities if necessary in conducting investigations under the FPA and NGA. It should be noted that the ability to obtain information directly from an entity, when needed to conduct an investigation, does not equate to regulation of such entity, or impede any other governmental agency's regulation of such entity.

Question 8: How would FERC define "economic dispatch"? What criteria would be used? Why should "economic dispatch" apply only to a multi-state utility? Why not have it apply in any regional market and to any entity supplying power to its customers? Should Congress grant FERC authority to have it apply to traditionally non-jurisdictional entities? Would a focus on economic dispatch increase reliance on short-term markets at the expense of mid- and long-term markets?

Response: The Commission has not formally defined "economic dispatch." Staff believes one appropriate definition would be "the operation of the integrated transmission and electric power supply system in a manner that schedules and economically prioritizes all available electric generation resources, including proposed offers from independent power suppliers, so as to minimize the cost of electric power used to serve customers reliably, recognizing any operational limits of generation and transmission facilities and any applicable renewable portfolio standards." The key criterion is whether a utility's dispatch minimizes the costs incurred to serve customers reliably.

All utilities should use economic dispatch as defined above. The reason for giving the Commission explicit, direct authority to require economic dispatch for a multi-state utility, but not for others, is that dispatch costs for a multi-state utility are generally controlled or allocated by a FERC-regulated contract among the utility's operating companies. States would be less able to require economic dispatch in these circumstances, compared to their ability to regulate single-state utilities.

I do not advocate that Congress give the Commission the authority to require economic dispatch by non-public utilities. While those utilities should use economic dispatch, any failure to do so can be addressed by means other than expanding the Commission's jurisdiction. However, public utilities should offer to purchase excess power available for sale by non-public utilities and include such purchases in their economic dispatch, when such purchases will reduce costs for customers of public utilities.

Economic dispatch should not increase reliance on short-term markets at the expense of longer-term markets. Economic dispatch should minimize costs in short-term markets, but buyers and sellers both would benefit from conducting much of their trading in longer-term markets. However, in order to ensure that all generators have the opportunity to fully recover both the fixed and incremental costs of their facilities, longer term contractual arrangements would be a necessary complement to the inclusion of independent generation in any economic dispatch program.

Question 9: If Congress grants FERC emergency authority to approve temporary changes to, or temporarily suspend, tariff provisions on file with the Commission as suggested by FERC in your testimony, how would FERC define "market power abuse"? What conditions may be appropriate to suspend tariffs beyond the 30-day period, if any?

Response: The Commission has not explicitly defined "market power abuse." At times, the Commission has defined market power in ways similar to the definition in the Department of Justice Merger Guidelines, i.e., "the ability of a seller to profitably maintain prices above competitive levels for a significant period of time." Applying this principle, however, requires careful analysis of specific circumstances, to properly distinguish legitimate competitive practices from abuses of market power. For example, in the context of market-based rates for public utilities, the Commission now uses two indicative screens (a pivotal supplier screen and a wholesale market share screen) and, if a utility fails either screen, a more detailed "delivered price test" is required. Also, in response to the market manipulation during the Western energy crisis, the Commission has adopted rules prohibiting "actions or transactions that are without a legitimate business purpose and that are intended to or foreseeably could manipulate market prices, market conditions, or market rules..." Any future findings of "market power abuse" presumably would be based on these concepts or related concepts in prior Commission decisions.

I do not know at this time what precise conditions might warrant suspension of tariffs beyond the 30-day period. However, as an example, if market conditions would allow potential abuse of market power or threaten reliability of service for a foreseeably temporary period longer than 30 days, a suspension of certain tariff provisions (or perhaps suspension of market-based rates) might be appropriate.

Question 10: Briefly describe FERC's SMA proceeding. What is its status? How does FERC define "market power", if at all, in such proceeding?

Response: For 15 years, the Commission has used a four-prong test to assess the eligibility of an applicant for electric market-based rate authority: (1) whether the applicant or its affiliates have, or have adequately mitigated, generation market power; (2) whether the applicant or its affiliates have, or have adequately mitigated, transmission market power (sometimes called vertical market power); (3) whether the applicant or its affiliates can erect barriers to entry into the market; and (4) whether there are concerns involving the applicant that relate to affiliate abuse and/or reciprocal dealing. In November 2001, the Commission adopted the Supply Margin Assessment (SMA) methodology as a new way to measure whether the applicant has generation market power. After several rounds of public comment and a two-day technical conference on how the Commission should measure generation market power, in April 2004 the Commission replaced the SMA methodology with two interim screens that are indicative of the presence of market power in generation: the uncommitted pivotal supplier screen and the uncommitted market share screen. In contrast to the SMA methodology, in measuring generation market power the new interim screens specifically recognize utility commitments to serve native load customers, long-term power sales obligations, and generation that utilities need to keep as operating reserves to backup their other capacity that is in operation. The Commission has used the new interim screens to process numerous electric market-based rate filings. If a utility fails either screen, the Commission uses a more detailed "delivered price test," for the generation market power prong. The Commission has also initiated a generic rulemaking proceeding (Docket No. RM04-7) to consider whether to retain or modify the four-prong test, including whether to retain or modify the interim generation market power screens. The Commission did not explicitly define the term "market power" in these proceedings, but the two indicative screens and the delivered price test are tools for evaluating market power.

Question 11: Without legislation, can FERC address the fundamental problem with hydro licensing process—namely, the fact that federal resource agencies mandate restrictive conditions on the operations of hydropower projects without either comprehensive analysis of their impacts or an independent review of the conditions?

Response: No. Section 4(e) of the FPA requires the Commission to include in licenses issued within reservations of the United States such conditions as the Secretary of the department under whose supervision the reservation falls deems necessary for the adequate protection and utilization of the reservation. Section 18 of the FPA requires the Commission to require licensees to construct, maintain, and operate fishways prescribed by the Secretaries of Commerce and the Interior. While the Commission analyzes these conditions and prescriptions in its environmental documents, it must accept them, and therefore cannot act independently on them. It should be noted that the proposal in Title II would place requirements on the federal resource agencies with respect to their development of conditions and prescriptions, but in no way expands or otherwise alters the Commission's authority concerning these matters.

Question 12: Is FERC's ILP process a substitute for the hydroelectric language in title II of the discussion draft? Please explain.

Response: No. The integrated licensing process (ILP) establishes a process through which environmental review can begin and issues can be identified at an early stage in the hydroelectric licensing process. If all parties cooperate in the ILP and conduct their activities in a coordinated fashion, the Commission should receive all necessary information, including mandatory conditions and prescriptions, such that it can issue a license in a timely manner. However, while the ILP might affect the timing for the development by the federal resource agencies of their mandatory conditions and prescriptions, it does not alter the manner in which they develop them—i.e., the ILP does not give the Commission the authority to revise or reject mandatory conditions or prescriptions. Since, as noted above, the FPA requires the Commission to accept mandatory conditions and prescriptions, it lacks authority to impose such requirements.

Question 13: Does the hydroelectric licensing rulemaking ongoing at the Department of Interior make the hydroelectric language in Title II of the Discussion Draft unnecessary? Please explain.

Response: No. The Department of the Interior's rulemaking may or may not accomplish the objectives of the proposed legislation, but is not yet finalized. It is Commission staff's understanding that the Department of Commerce is deciding to what extent it concurs with Interior's procedures. The Department of Agriculture at one time had a process for internal review of mandatory conditions, but no longer does so.

Question 14: Currently, what is the appeals process in a hydroelectric relicensing proceeding? How would that change under the proposed legislation in Title II?

Response: After the Commission issues a hydroelectric license, aggrieved parties may petition the Commission for rehearing. After the Commission acts on rehearing, a party who has sought rehearing may then seek review of the Commission's orders in the United States Courts of Appeals. Under the proposed legislation, the federal resource agencies would be required to provide a formal opportunity for review of proposed mandatory conditions and prescriptions within those agencies.

Question 15: Some parties have claimed that the proposed changes to hydroelectric licensing may result in a violation of due process. Does FERC agree? Please explain.

Response: I am not aware of the exact nature of the referenced concerns. However, some parties have alleged that the proposed legislation is problematic because it would require the federal resource agencies to consider those alternatives to mandatory conditions and prescriptions proposed by license applicants, and would permit the agencies to consider alternatives raised by other entities. I do not consider this to be a deficiency in the proposed legislation. Allowing the agencies to consider alternatives proposed by entities other than license applicants should give those entities a fair opportunity to be heard.

Question 16: Do the changes proposed in the Energy Policy Act of 2005 work with FERC's ILP process?

Response: There is nothing inconsistent between the proposed legislation and the ILP, and, to the extent that the proposed legislation would improve decision making and increase transparency, the hydroelectric licensing process would benefit accordingly. If the federal resource agencies are required to establish internal review processes, however, it is important that the timing of those processes be integrated with the ILP, such that the Commission's licensing process is not delayed.

Question 17: American Rivers' testimony states that if the language in the Energy Policy Act of 2005 were in effect, the recent Tapoco settlement would not have occurred? Does FERC agree?

Response: No. I have no reason to believe that this would have been the case, and see nothing in the proposed legislation that would have a negative effect on the settlement of hydroelectric licensing proceedings.

Question 18: American Rivers' testimony states that the Energy Policy Act of 2005 would not bring current hydroelectric projects up to today's environmental standards. Does FERC agree?

Response: No. The Commission is required by the FPA to license only projects that are best adapted to a comprehensive plan for the development of the waterways at issue, giving equal consideration to power and development purposes, and to environmental and other nonpower purposes. Pursuant to these standards, any license issued by the Commission will bring projects up to current environmental standards. The proposed legislation, while potentially increasing the efficiency and equity of the licensing process, would not have any impact on the standards by which the Commission determines what conditions to include in a license.

Question 19: If FERC loses its LNG siting case in the 9th Circuit, will it affect just that site or could it have greater repercussions?

Response: Were the 9th Circuit to determine that the states have jurisdiction over the siting of LNG import facilities, it would likely have impacts across the country. The California Public Utilities Commission makes the argument that the Commission lacks any authority over LNG imports. If this argument prevails, federal regulation of LNG siting and safety would become uncertain. State jurisdiction would make it more difficult for the federal government to site LNG facilities based on the overall energy needs of the nation. Moreover, different states might impose different siting requirements, which could be inconsistent with national safety standards.

Question 20: The Voluntary Transmission Pricing Plans in the discussion draft attempt to allow the fair distribution of costs necessary to interconnection merchant generation facilities to the grid in regions of the country in which ratepayers do not need the merchant generation or improvements in the region's transmission grid to accommodate such generation.

a. What is FERC's position on the Voluntary Transmission Pricing Plans contained in the discussion draft? Please describe FERC's views on the voluntary nature of such provisions and how such pricing plans may be subject to FERC's just and reasonable ratemaking authority.

Response: I would note that the Voluntary Transmission Pricing Plan provision under section 1242 is not limited to merchant generator interconnection cases and applies to all construction, expansion or modification of transmission facilities in interstate commerce. The Commission has adequate authority to approve voluntary transmission pricing proposals under FPA sections 205 and 206. Moreover, the Commission's existing transmission pricing policies are consistent with the core policy of section 1242—that customers who benefit from new transmission facilities should pay for those facilities. Any plans approved under current law, or under section 1242, would have to be just, reasonable, and not unduly discriminatory or preferential. Accordingly, I do not believe that section 1242 of the Discussion Draft is necessary.

b. How does the proposed language compare with FERC's current interconnection policies? How does FERC's policy compare with transmission pricing policies of existing and FERC-approved RTOs? How, if at all, does FERC's current policy promote the economically efficient siting of generation?

Response: Under the Commission's current policy for assigning the costs of interconnection, the new generator pays for all the studies required in advance of constructing the interconnection. The new generator also pays for all the interconnection facilities and equipment on its side of the interconnection (i.e., the point where its electrical equipment and other facilities interconnect to the interstate transmission network). For example, a new long radial line may be needed from the generator to the grid, and the generator pays for the entire cost of this line, up to the point of interconnection to the grid, even if the line is constructed by the transmission owner.

Sometimes, an interconnection also requires upgrades to the interstate transmission network. The debate about pricing for new generators interconnecting to the grid concerns who pays for such "network upgrades." A network upgrade often benefits all transmission customers by making the entire network stronger and more reliable. Although the request from a generator to interconnect may be the immediate reason for upgrading the network, the generator is seldom, if ever, the sole beneficiary of the network upgrade.

In determining who should pay for network upgrades, the Commission examines the effect of including the costs for the upgrades in the rates of existing customers. If the rate for existing customers would decrease (by virtue of including the additional costs of the upgrade in the numerator and the additional usage of the transmission network in the denominator of the rate calculation), the Commission permits the network upgrades to be "rolled-in" to the existing average rate, leaving all customers better off. However, if including the costs of the upgrades would have the effect of increasing the average transmission rate for existing transmission customers, including the utility's native load, the Commission permits the utility to directly charge the generator for the costs of the upgrades through an "incremental" rate (the cost of the network upgrades divided by its increased throughput). The new generator may be charged the rolled-in rate or the incremental rate, as appropriate, but not the sum of the two rates. Under either method, existing transmission customers (including native load) are held harmless.

The proposed language of the Voluntary Transmission Pricing Plan provision has much in common with the Commission's current pricing method, providing that rates must be just and reasonable and that costs must be assigned in a fair manner. The proposal appears to allow a variety of cost allocation methods, including direct assignment, participant funding, and roll-in.

Requiring the Commission to approve a rate proposal by a regulated entity based on any detailed legislative test is, in general, not recommended. I believe our existing rate authority is more than adequate to address the transmission pricing issues associated with the interconnection of merchant generation in ways that are just, reasonable and not unduly discriminatory or preferential under the Federal Power Act.

Because a utility owning or operating transmission facilities outside an RTO or ISO typically owns generation that competes with the new generator, the Commission permits little deviation from its existing pricing policy for such non-independent transmission providers. The Commission remains concerned that non-independent transmission providers have a strong incentive to assign transmission costs to competing generators in ways that may be unduly discriminatory or preferential.

The Commission permits additional pricing flexibility when an independent transmission provider proposes to allocate the costs of transmission network upgrade. This is because an independent entity that does not compete in the marketplace for generation sales is less likely to act in a discriminatory or preferential manner in making determinations regarding the allocation of transmission costs associated with a particular upgrade. Further, many RTOs and ISO have developed innovative and sophisticated approaches for sharing the existing costs of the transmission network among their members and for managing and pricing transmission congestion within the region. To allow all the components of such innovative policies to work together effectively, the Commission permits additional flexibility for the ISO or RTO to design complementary policies for assigning the costs of network upgrades.

Economically efficient siting of generation occurs when power customers can choose to add either generation or transmission, whichever costs less. While the siting of any proposed new generation or transmission is generally subject to state regulatory approval, the Commission's current transmission pricing policy ensures that generators understand the cost consequences of their siting decisions. It requires the generator to pay for all facilities that must be constructed between the generating facility and the point of interconnection with the grid. As a result, the generator is motivated to locate as close as possible to an existing transmission line to reduce its costs, which is the economically efficient incentive.

Further, in the case of a network upgrade needed for an interconnection, the Commission permits the transmission owner to require the generator to advance the funds for constructing the network upgrade. The generator's "loan" to the transmission owner is returned over time as a credit against the generator's transmission bill. This means that a merchant generator is initially responsible for the costs of any network upgrade regardless of whether it is ultimately charged an average, rolled-in rate or an incremental rate for transmission service. Further, the transmission owner is allowed to extend the period of time over which it must reimburse the generator through credits for this up-front construction loan for as long as 20 years. Thus, the generator bears a substantial cost burden to complete its interconnection—a burden that is greater to the extent that the generator chooses a site that is far removed from the grid or otherwise entails the construction of costly facilities and grid upgrades.

c. Is it FERC's policy to encourage the siting of merchant generation regardless of costs necessary to interconnect such merchant generation with the grid?

Response: The Commission's policy is to encourage the development of energy infrastructure, including merchant generation, so long as the costs of new infrastructure are allocated in a just and reasonable and not unduly discriminatory or preferential manner. The Commission's transmission pricing policies encourage economically efficient new generation while holding native load customers harmless from the costs associated with necessary upgrades to the interstate transmission grid.

d. Why should ratepayers who do not need the generation or benefit form the energy supply across their local utility's transmission lines be compelled to pay for transmission upgrades they do not need?

Response: The Commission's existing transmission pricing policies fully protect existing customers (including native load) from the costs of transmission upgrades occasioned by the interconnection of new merchant generation.

e. Does FERC's transmission pricing policy encourage the building of generation within load pockets? If so, how?

Response: The Commission's current interconnection pricing policy promotes the economically efficient siting of generation, including generation within a load pocket. A load pocket is typically a small region of the grid that has limited ability to import power because of transmission constraints. New York City, San Francisco, and San Diego are examples of load pockets. A load pocket is a potential problem both for reliability and for the potential exercise of market power by generators in the region. In general, a load pocket is an attractive market for new generation because competition from outside suppliers is limited. However, load pockets generally exist because it is difficult to site new generation or to build new transmission into the constrained area.

The Commission has encouraged RTOs and ISOs to adopt an efficient pricing system for managing and pricing congestion for the region. In an RTO or ISO with efficient congestion pricing, a generating facility located outside a load pocket faces increased congestion costs to move power into the load pocket. However, for a generating facility located inside the load pocket, these congestion costs are largely avoided. Thus, the Commission's pricing policies provide the generator with a strong incentive to locate within the load pocket, whenever possible.

Question 21: What is FERC's position on the Open Nondiscriminatory Access provisions of Sec. 1231? How, if at all, may this language be changed to ensure open access over interstate transmission facilities at comparable rates?

Response: The provisions in section 1231 of the Discussion Draft would provide helpful authority to ensure that non-public utilities provide non-discriminatory access to their transmission systems similar to the requirements currently imposed on public utilities. The provisions on rates, terms and conditions are adequate to ensure that customers receive service comparable to the service the utilities provide themselves. However, section 1231(f) would give the Commission the authority to remand transmission rates to an unregulated transmitting utility for review and revision where necessary, but would not give it the authority to modify the rates directly. The Commission could be given the authority to modify the rates where necessary, to prevent any delay in the establishment of rates in compliance with this section.

NATIONAL GOVERNOR'S ASSOCIATION
March 23, 2005

The Honorable RALPH M. HALL
Chairman
Subcommittee on Energy and Air Quality
Committee on Energy and Commerce
2125 Rayburn House Office Building
Washington, DC 20515

DEAR CHAIRMAN HALL: On behalf of the National Governors Association, thank you for the opportunity to respond to the Subcommittee's questions in regard to my testimony on February 10, 2005. Following are the questions posed, and our answers. With regard to methane hydrates and the Alaska Natural Gas Pipeline, the responses represent the views only of the State of Alaska.

Question 1. In your testimony, you raise an objection to the federal coordination of interstate electric transmission facilities. In objecting to federal government authority pursuant to this provision, you explain that NGA has yet to see credible evidence that states have abused their responsibility to balance electricity transmission needs with other important public considerations. If the problem is not the states, why is it so difficult to site power lines? There have been very few major interstate transmission lines built in this country in the last 20 years. In fact, the Cloverdale line across the states of Virginia and West Virginia took over 10 years to get all approvals. So if it is not the States, perhaps it's parochial opposition preventing transmission siting. If that's the case, wouldn't that justify the need for a federal backstop to achieve interstate transmission goals that are in the national interest? What was siting process of the Cloverdale line and what is its current status?

Response: There are a myriad of reasons that it is difficult to site power lines, and most of them are due to reasons that have little to do with state regulators. Generators and competing transmission owners sometimes are opposed to new transmission lines because the lines may conflict with existing commercial objectives and inject price rivalry into a monopoly situation.

Transmission lines are also difficult to site because they sometimes cross sensitive environmental areas, like parks, wetlands, habitats, or streams and waterways. Often they interfere with someone's view of the surrounding landscape. The concern that electromagnetic fields produced by the currents in the transmission lines may have an effect on people also is a matter required to be taken into account in some states. Our legal system requires that persons with an interest in a transmission line have the right to intervene in order to present their point of view or question a proposed line. Neighbors, communities, environmental groups, and other utilities are typical intervenors in transmission siting proceedings, and assume a similar role regardless of which entity is responsible for siting.

Existing federal laws are sometimes another impediment to siting transmission lines. The approval procedures that transmission owners must undertake to site power lines that cross federal lands can be long and difficult because of federal process requirements and because these applications struggle for priority among the agencies' other missions. Since the costs of a transmission project often fall on consumers who have no direct say in whether they want to pay those costs, regulators and siting authorities must weigh very carefully their responsibility for passing along construction costs to people who will not benefit.

Within the Western Interconnection, no state has denied a permit for an interstate transmission line in the past 17 years. The example that you cite—the Cloverdale line through Virginia and West Virginia—was impeded in its construction in large part because of federal agencies' objections to the line traversing national forest land. Both the U.S. Forest Service and the U.S. Park Service took years to complete environmental impact statements and recommended that the line not be built through the Jefferson National Forest and across the New River. Only after an alternative route was chosen that was satisfactory to the federal agencies, was the normal siting process allowed to proceed in both states. The legal requirements to consider the amended application with its alternate route, along with the statutory requirements for public notices and hearings, were not within the states' authority to change. The line is now under construction.

Preempting state law and state decisions with the judgment of Federal Energy Regulatory Commission (FERC) regulators for would not change the requirements to comply with the requirements of federal land management agencies. Nor would it reduce citizen's opposition or lawsuits or expedite the administrative process of reviewing an application. Arguably, given the track record of many federal agencies in addressing their backlogs of reviewing and approving permit applications, it might actually increase the length of time that it takes to build transmission lines.

Lastly, it's important to note that the so-called federal "backstop" in HR 6 gave the FERC the authority to preempt a state's siting process if the state "withheld approval, conditioned its approval in such a manner that the proposed construction or modification is not economically feasible, or delayed final approval for more than one year after the filing of an application seeking approval." This so-called "backsto authority" virtually gives the states an ultimatum—"approve the project within one year or FERC will approve it for you." The NGA opposes ultimata on states. As the Cloverdale line history indicates, federal approval decisions that took more than four years to complete would have eliminated state jurisdiction despite the fact that the states were not at fault for the delay. (A copy of the Cloverdale line chronology is attached.)

Question 2. In your testimony you tout the potential for methane hydrates to be a viable source for natural gas supply. However, you also site the need for government-sponsored research and tax credits in this area. In light of DOE's proposed termination of its Fossil Energy Oil and Natural Gas R&D program where such research was performed, what is the likelihood that production from this resource will become a reality? Do you feel private industry can champion this effort?

Response: The federal funds from the Hydrate Research Act of 2000 that have flowed through the Department of Energy Office of Fossil Fuels have been critical in advancing the characterization of this huge potential natural gas resource. The onshore North Slope of Alaska alone is estimated to contain 529 trillion cubic feet

(TCF) of methane contained within hydrates while the area offshore of the North Slope is estimated to contain 32,000 TCF. Reservoir characterization and computer production simulations by BP, the USGS, and various universities, coordinated and funded through DOE, have indicated that at least some of these hydrates (100 TCF of hydrates overlie the producing oil fields) could potentially be produced at economic rates. However, this work fell short of the necessary production tests which would verify the models. Reauthorization of the Hydrate Research Act, as recommended, would lead to these critical tests.

Additionally, hydrate production shows promise in the area of carbon sequestration, where CO_2 is injected into the hydrate-freeing methane and trapping the CO_2. It is very likely that with further government-sponsored research hydrate production will become a reality. This research is most effective when the research is conducted through joint government and industry partnerships. Private industry alone is unlikely to advance the technology nearly as rapidly and will not have the same motivation to make the data public.

Question 3. In your testimony you mention the progress that has been made on the Alaska Natural Gas Pipeline. EIA's 2025 natural gas supply projections anticipate the pipeline being live no later than 2016. Do you see any impediments at this early state to that timeline? If so, what are they and what can be done to remove any such hurdles?

Response: The State of Alaska is strongly committed to the realization of the Alaska Natural Gas Pipeline. Under the framework of the Alaska Stranded Gas Development Act, the State is currently participating in negotiations with the Alaska gas producers, ExxonMobil, BP, and ConocoPhillips to result in a viable contract. The State is also negotiating with other companies on a potential contract. The Alaska State Legislature must then approve a contract. The Governor intends to present a contract or contracts to the Legislature as soon as possible, and would like to do so during the current legislative session or a special session later this year. The Alaska Port Authority also is proposing a project that would not require negotiations with the state government under the Alaska Stranded Gas Development Act. Under the current timetable of the state process, the Alaska Natural Gas Pipeline should be online in 2012, well before the EIA-projected date of 2016.

While the Stranded Gas Act establishes the order for much of the activity underway, the federal government continues to be involved. The State has been actively engaged with the federal agencies that will play various regulatory roles pursuant to the Alaska Natural Gas Pipeline Act, including the Department of Energy and the Federal Energy Regulatory Commission. To that end, our interactions have been positive and without significant obstacles or delays. If, however, problems occur later in the process, we will inform the Congress.

Please feel free to contact me, or Diane S. Shea, NGA Natural Resources Committee Director, at (202) 624-5389, or dshea@nga.org, if you have any additional questions. We look forward to working closely with the Committee as you develop energy legislation.

Sincerely,

FRANK H. MURKOWSKI
Chairman, Natural Resources Committee

Enclosure

Policy Position

NR-18. COMPREHENSIVE NATIONAL ENERGY AND ELECTRICITY POLICY

18.1 Preamble

The Governors recognize the energy and environmental challenges facing the United States at the beginning of the 21st century. Periodic shortages in oil, gas, and electricity cause hardship for consumers and businesses, harm the economy, and can reduce national security.

Our nation's dependence on foreign sources of oil is at an all-time high. At the same time, improved energy efficiency and conservation has reduced energy consumption and energy costs, while allowing consumers to enjoy a cleaner environment and more energy services without commensurate increases in energy demand.

Demand for energy will continue to grow, however. Simultaneously, energy efficiency is projected to continue to improve. Yet even with more conservation, innovation, and new technology, the United States will need more energy supplies.

Energy issues must be addressed nationally, while still recognizing state and local authority over environmental and energy matters. The solution to the need for energy will require increased conservation and energy efficiency as well as exploration of new energy supplies, including environmentally responsible development of traditional sources and greater reliance on alternative and renewable sources. We also must continue the trend of reducing emissions associated with energy production.

Affordable and reliable electricity is essential to improved quality of life and economic opportunity. A number of states have passed legislation introducing competition into their retail electric industry, and many other states are considering such proposals. Although the cost of electricity varies greatly across the country, as do the issues each state faces, electric industry restructuring may result in lower consumer prices for everyday goods and services, the development of innovative new products and services, and a growing, more productive economy.

States have regulated the electric industry in the United States for nearly 90 years, during which time the state and federal roles have evolved. Traditionally the federal government, through the Federal Energy Regulatory Commission (FERC), has regulated wholesale electricity sales and the interstate transmission of electricity, while states have had jurisdiction over the retail transmission, distribution, and sale of electric energy to consumers within a state.

18.2 Principles

A comprehensive national energy policy must meet the public's current and future needs for energy, environmental quality, national security, and a healthy economy. Recognizing the costs and benefits associated with these public needs, the Governors support a national energy policy based on these ten principles.

- Provide our citizens with adequate, affordable energy supplies and services.
- Ensure environmental quality.
- Promote conditions in the federal and state regulatory context that recognize the unique and complementary roles of federal, state, and local governments, and are conducive to the development of economically viable and environmentally sound energy resources.
- Recognize the authority of states, tribes, and local communities in decision-making.
- Promote a diverse and reliable portfolio of energy sources and increase production of domestic sources of energy in a safe and environmentally sound manner.
- Support the production and use of domestic renewable energy sources.
- Promote the prudent and efficient use of our country's resources through conservation and efficiency efforts.
- Support sustained investment of public and private funds into expansion and updating of infrastructure capacities, and ensure improved public and private investment into research and development for alternative and renewable energy resources and advanced technologies for cleaner, more efficient production of traditional energy resources.
- Provide Americans with access to the information they need to make sound energy choices.
- Recognize that states are part of an integrated energy system and partners with neighboring states in developing regional solutions.

18.3 Energy Conservation and Improved Energy Efficiency

Energy conservation and improved energy efficiency represent a first, low-cost, environmentally safe, and sustainable option to respond to our nation's energy needs. The nation's Governors are dedicated to maximizing energy conservation and improved efficiency as a means to decrease our reliance on imported oil, reduce the environmental impacts of fossil fuels, reduce the long-term operating costs of businesses and industries, slow the depletion of our finite energy resources, and extend the time to transition to new and innovative energy technologies.

The Governors believe that the federal government should maintain its central role in promoting funding and developing a wide-ranging program of energy conservation and improved energy efficiency that considers all sectors of the economy. Such a program should be cooperatively developed and implemented by the states and the federal government working together as full partners.

A properly constructed program must build on existing public and private elements and must recognize the benefits and limitations of the marketplace in realizing the full potential for energy conservation. To maximize energy efficiency and conservation efforts, Governors support:

- programs to increase consumer awareness;
- increased technology transfer opportunities;
- incentives to encourage greater investment in energy efficiency and conservation technologies; and
- elimination of unnecessary regulatory barriers to achieving greater energy efficiency.

Energy conservation and efficiency programs should include the following.

18.3.1 Federal Government Actions. The federal government should show leadership by directing federally owned buildings to make use of economical energy conservation and efficiency programs, including introducing new efficiency techniques into federal buildings. Federal departments and agencies should take appropriate actions to conserve energy consumption at their facilities to the maximum extent that is cost-effective in the long term. The U.S. Department of Energy (DOE) should promote greater energy efficiency and conservation by expanding the Energy Star labeling and buildings programs.

18.3.2 Appliance Standards. DOE should take steps to improve the energy efficiency of appliances by supporting and expanding the scope of the appliance standards programs, setting higher standards where technologically feasible and economically justified.

18.3.3 Transportation Efficiency. The Governors recognize that meeting our national energy policy objectives in the transportation sector will require significant reductions in fuel consumption. The Governors believe that the following policies can help reach this goal:

- encouraging greater fuel efficiency;
- providing better congestion management in high traffic areas;
- retiring older, less efficient vehicles from the market more quickly;
- promoting the development and introduction of, and the infrastructure for, advanced technology vehicles;
- creating federal tax incentives for the purchase of fuel-efficient hybrid and fuel-cell vehicles;
- supporting public/private partnerships for investment in research and development of fuel efficiency technologies; and
- improving the efficiency of mass transit systems.

Our nation's desire for mobility, safety, consumer preference, vehicle affordability, and functionality must be carefully considered as government considers new policies to promote the rapid deployment of more fuel-efficient vehicles into the market.

18.3.4 Demand Response. The federal government should create incentives for energy providers to provide mechanisms for consumers to change their energy demands in response to price fluctuations. Incentives for retail consumers also should be provided to manage demand for peak load, conserve energy, and utilize energy-efficient technologies and tools.

18.3.5 Energy Conservation Education, Research, and Development. The federal government should promote energy conservation education programs and fund research into conservation technologies. Federal funding of energy conservation programs, including grants to states, should be enhanced. The development of energy-efficient technologies, including fuel-efficient engine and vehicle technologies, should be actively promoted. DOE should be provided with adequate authority, staffing, and funding to undertake and coordinate conservation activities.

18.3.6 Energy Efficiency Programs. The federal government should provide funding and incentives for programs that help businesses, industries, schools, public agencies, and residences use energy-efficient building techniques, building materials, appliances, equipment, motors, and other systems readily available in today's market. Public benefits funds and tax incentives are examples of how these programs may be accomplished.

18.4 Improving Energy Supply

The national security and economic well-being of this nation are predicated on securing economic and environmentally sustainable supplies of energy. To improve energy supply, the Governors support the following measures:

- exploration and development of the nation's energy resources, to the extent they are competitive in energy markets and can be developed consistent with federal, state, and local environmental requirements;
- federal land management agency participation and coordination with states regarding decisions by federal agencies about energy exploration and production on federal lands, particularly regarding public lands withdrawals and lease stipulations;
- continuation of the production of energy on federal lands and allowing states physical access to federal lands for state exploration and production projects that will promote the development of clean energy supplies;
- federal policies and incentives that encourage reliable, affordable, and clean energy supplies and that encourage capital investment, protect current production, and promote marginal production; and

- removal of barriers that discourage energy-efficient technologies, renewable energy resource development, and fuel diversity.

Consistent with these measures, there is a need to develop a diverse and flexible portfolio of fuel sources, including increased domestic production from renewable, alternative, and conventional sources.

18.4.1 Oil. Promote new domestic production through exploration and development of additional petroleum reserves and refining capacity, and promotion of enhanced oil recovery technologies.

18.4.2 Natural Gas. Encourage effective market-based measures that will support production of natural gas supplies and development of infrastructure in an environmentally sound manner, reduce impediments that limit such production, provide appropriate funding levels to avoid unnecessarily lengthy reviews imposed by the Federal Energy Regulatory Commission (FERC) and other federal agencies, and promote policies against unfair transportation practices. In addition, Governors endorse, pending completion of appropriate environmental reviews, a project to bring Alaska natural gas to market via a pipeline from the North Slope along the Alcan Highway through Canada to the North American distribution system, while ensuring full pipeline safety to protect the public and the environment.

18.4.3 Coal. Encourage technologies to utilize coal more cleanly and efficiently, including continued support for the Clean Coal Technology Program, in partnership with the private sector, as well as research and development in clean coal usage.

18.4.4 Nuclear. Support efforts to resolve nuclear power issues including the oversight of operations, licensing, plant life extension, and decommissioning of nuclear facilities. The Governors believe a safe solution to the nuclear waste issue must be achieved. The Governors support adequate resources dedicated to research of promising technology options for waste reduction, reuse, and disposal. Without a resolution of these issues, the long-term viability of nuclear power is limited.

18.4.5 Renewables. Support federal incentives and continuing research and development of renewable energy sources (small-scale hydroelectric, photovoltaics, solar, wind, biomass, geothermal, landfill gas, etc.), including environmental and economic impacts, as well as support of technologies that assist in integrating renewable energy into existing energy systems. The Governors also support federal interconnection rules and net metering that promote distributed generation from all types of renewable resources.

18.4.6 Alternative Transportation Fuels. Support continued federal incentives for the production of biomass and other alternative transportation fuels in the near term and expanded incentives for agricultural biomass development generally.

18.4.7 Hydrogen. Support efforts to promote the development and use of hydrogen through fuel cell technologies and distributed generation. As the nation transitions into new technologies to back up our fossil reserves, hydrogen offers promise as a fuel source for mid- and long-term fuel supply. Federal assistance for research and development, removal of institutional barriers, development of unified standards, as well as production and use incentives, are warranted to promote hydrogen as a viable fuel source.

18.5 Improving Energy Transmission

Energy transmission and distribution networks must be adequate to move energy from the source to the consumer. Adequate resources must be invested and equal access for all suppliers must be protected. The transmission network of the United States must be upgraded and expanded. The Governors support:

- recognition of state responsibility to ensure timely decisions on permitting, siting, and licensing of energy facilities, consistent with state and federal laws and health and safety requirements;
- encouragement of multistate cooperation in identifying the economics of, and need for, additional energy transmission and generation projects, including improved communication among the appropriate state and federal regulatory agencies, affected utility companies, and other affected parties;
- measures to encourage market-based infrastructure investment in transmission capacity and distributed generation;
- a requirement that the federal government cooperate with the states in the permitting, licensing, and construction of interstate and intrastate natural gas pipeline construction that allows for the expeditious development of natural gas infrastructure; and
- full utilization of existing rights-of-way for energy transmission, consistent with state and federal laws and health and safety requirements, and coordinated environmental reviews.

Governors oppose preemption of traditional state and local authority over siting of electricity transmission networks, but Governors recognize that situations exist where better cooperation could improve competition and reliability. Governors are willing to engage in a dialogue with the federal government and industry to address these situations in a manner that does not intrude upon traditional state and local authority.

18.5.1 Multi-State Entities. While states do not support federal preemption of state planning and siting authority, better cooperation between states can improve the reliability of interstate transmission networks. Governors recognize and support the efforts that states and regional governors associations are making to develop interstate mechanisms to work with regional electricity markets. Congress should direct the Federal Energy Regulatory Commission to recognize state-created regional mechanisms—Multi-State Entities (MSEs)—designed to address transmission planning, certification of need, and siting of facilities. The MSEs also should be designed to seek regional solutions to issues that may fall under federal, state, or shared jurisdiction.

FERC should in no way impede states' authority to design the MSE in a manner most appropriate for the region. The federal government should provide financial assistance to state organizations to assist states in forming MSEs.

The MSE should be formed through a memorandum of understanding signed by Governors and, where appropriate, federal land management agencies, public power authorities, tribal authorities, and border countries. Any memorandum of understanding should recognize the authority of each state to approve or deny the construction or expansion of facilities and also should establish procedures to address conflicts and impasses among states and the other parties. The boundaries of the MSE should follow the footprints of regional electricity markets, as defined by the participating and affected states.

FERC should direct the regional transmission organization (RTO) or independent transmission provider (ITP) to comply with MSE guidelines and decisions regarding regional transmission construction and expansion plans, as well as other regional electricity issues subject to state jurisdiction. With respect to regional electricity issues subject to FERC jurisdiction, FERC should direct the RTO or ITP to show deference to the judgment of the MSE.

The Governors believe that it is preferable to have the MSE serve as the sole vehicle for collective state input to the RTO or ITP and recommend against having both Regional State Advisory Committees and an MSE.

18.6 Regulatory and Environmental Issues

Within our federal system, the states have responsibilities over areas such as land use planning, environmental protection, public health and safety, and the conservation and management of natural resources. The states have the lead responsibility for the protection of the environment and the judicious management of their energy and other natural resources. States must exercise lead authority for:

- exploration and development of energy resources within their borders, especially those resources whose development has highly regional and local impacts;
- continuation of primary state responsibility and final decision authority for the approval and siting of energy facilities, consistent with state and federal law, along with safety and environmental requirements (siting of energy transmission facilities should follow existing rights-of-way whenever possible);
- prevention and abatement of air and water pollution;
- management of water resources;
- management of the coastal zone, and continued authority under the Coastal Zone Management Act to ensure consistency of federal activities with approved state plans; and
- administration and enforcement of building codes.

Because of these primary responsibilities, the states recognize they bear a heavy burden in the achievement of our national energy goals. Successful development of these national policies requires the early, effective, and sustained participation of state and local governments. Essential to this partnership is consultation and concurrence between the states and the federal government in all areas of national energy policy.

- Joint federal-state task forces should ensure effective state-federal communication.
- There should be adequate and early opportunity for state review and comment on federal energy regulations and policies.
- Administration of federal programs should be flexible so that the regional differences and diversity among states are recognized and incorporated into the goals of the federal energy programs.

- Multi-state cooperation should be encouraged in identifying the economics and need for additional energy transmission and generation projects. Regional energy transmission and generation planning should be further enhanced through improved communication and coordination of regulatory reviews among the appropriate state and federal regulatory agencies, affected energy suppliers, and other affected parties.
- There should be no preemption of state regulatory authority or the establishment of federal standards governing state regulation of utilities. Utility commissions should continue to have authority over mergers, retail energy rates and ratemaking processes, and consumer protection measures. In addition, there should be no preemption of state regulatory authority governing energy exploration and development when states have primacy or delegation over the relevant environmental regulations.
- The backlog of permit applications by federal land management agencies should be addressed and unnecessarily burdensome regulations and procedures for energy production, transmission, and generation projects should be streamlined.

In the process of developing any federal legislation, Congress should examine the implications of their actions on public health and the environment based on sound, peer-reviewed science. The Governors recognize their responsibility to ensure that emissions from all sources, including the electric utility industry, must meet federal objectives of the Clean Air Act. Therefore, any such impacts that might result from federal legislation encouraging further competition within the electric utility industry must comply with the Clean Air Act. The Governors also believe, however, that states should be afforded flexibility to apply the law effectively to this specific source of emissions.

In addition, regulatory practices should encourage net environmental improvements, while providing a stable planning environment for energy providers and consumers as well as a well-defined planning horizon. Unnecessary federal energy regulations, policies, and programs should be reviewed and revised as necessary. The Governors specifically recommend the following.

- Motor fuel composition must continue to be an integral component for reducing mobile-source air emissions. Efforts must be undertaken to avoid policies that promote and sustain the development of "boutique fuels." More simplified approaches and streamlined regulatory requirements that promote the standardization of motor fuel products must be explored.
- Congress should pass legislation to establish a flexible, market-based program to significantly reduce and cap emissions of sulfur dioxide, nitrogen oxides, mercury, and voluntary reductions of carbon dioxide from electric power generators. The legislation should provide regulatory certainty by establishing reduction targets for emissions, phasing in reductions over a reasonable period of time, and providing market-based incentives, such as emissions-trading credits, to help achieve the required reductions.
- New Source Review requirements should be reformed to achieve improvements that enhance the environment and increase energy production capacity, while encouraging energy efficiency, fuel diversity, and the use of renewable resources.

18.7 Energy Emergency Preparedness

States have played a unique and important role in response to past energy crises and must maintain their ability to meet their responsibilities to mitigate the effects of future supply disruptions or shortages. It is imperative that states and the federal government develop strategies for responding to a broad variety of possible energy and electricity emergencies. Initial efforts should focus on strategies to prevent emergencies from occurring. Efforts to diversify our energy systems while maximizing our use of cost-effective domestic energy resources are part of this long-term effort. Additional efforts must focus on planning the response federal and state governments would take if an energy or electricity emergency occurs. Any federal actions must give consideration to existing state laws and programs, and state and local officials must be included in any federal planning process.

Voluntary conservation should be preferred to mandatory measures whenever possible. Any mandatory response should be phased in, beginning with the least stringent measures, with ratiouing reserved for only the most severe shortage.

To facilitate emergency preparedness, the Governors support the following measures.

- It is essential that integrated emergency response plans and procedures be developed and well tested to ensure the coordination and flow of information among energy suppliers; consumers; and federal, state, and local governments.

- Fuel switching capability for large energy users to reduce dependence upon a single fuel source should be encouraged.
- A timely official review of the Strategic Petroleum Reserve (SPR) should be undertaken by Congress and the Administration to determine its ideal size. The Administration also should establish more specific criteria for determining when the SPR should be tapped, taking into account regional reserves.
- Upon a Governor's declaration of an energy or electricity emergency, non-exempt federal facilities within a state should be required to reduce their energy consumption by at least 10 percent from the previous year's consumption, for the duration of the emergency.

18.8 Energy Infrastructure Security

Energy infrastructure—power plants, refineries, and transmission and distribution networks—share the vulnerability of all types of critical infrastructures to risks associated with threats from terrorist attacks and weapons of mass destruction. Managing the vulnerability of energy infrastructure is a necessary element of our national security, economic well-being, and environmental protection. Based on the level of vulnerability and risk, measures should be taken to detect, prevent, control, and manage the consequences of terrorism directed toward energy infrastructure. The Governors also support the principles outlined in NGA policy HR-10, Terrorism and Homeland Security*, and support the use of those principles in the implementation of this provision.

18.9 Electricity

8.9.1 Principles

The Governors support an electric utility industry that provides consumers with lower prices, improved performance, and enhanced reliability. As the industry undergoes structural changes to promote competition, the Governors endorse the following principles.

- Any action taken by Congress should enable states to restructure the electric industry but not impose a mandate on states to do so. Should Congress legislate, it must grandfather state actions to establish retail competition.
- All consumers should have access to adequate, safe, reliable, and efficient energy services at fair and reasonable prices as a result of competition. Structural changes in the industry should be encouraged when they result in improved economic efficiency and serve the broader public interest.
- The safety, reliability, quality, and sustainability of services should be maintained or improved.
- All consumers should share the benefits of structural improvements and be protected from anticompetitive behavior, undue discrimination, poor service, and unfair service practices.
- States should maintain the authority to require public benefits programs within a state.
- States should maintain their flexibility to determine retail electric policies, including the content and pace of restructuring programs and retail stranded cost determinations.
- Structural changes to the industry should not impede compliance with the Clean Air Act.

18.9.2 State Role

18.9.2.1 Retail Electricity Sales and Services. During the past nine decades, the state role in utility regulation has evolved to include jurisdiction over public benefits programs, universal service, reliability, and all functions and services related to the sale of retail electric energy. States should maintain their authority over the retail transmission, distribution, and sale of electric energy to consumers within a state, including the ability of a state to implement, or not implement, retail competition. FERC should be guided by and give deference to states' differentiation and identification of transmission facilities dedicated to retail service and facilities used in interstate commerce.

18.9.2.2 Public Benefits. States should maintain the authority to require public benefits programs on a nondiscriminatory basis, including those that support reliable and universal service, energy efficiency, renewable technologies, research and development, and low-income assistance. States also should:

- maintain their authority to impose nonbypassable charges to fund such programs that provide societal benefits; and
- be allowed to decide what mix of renewable technologies should be included in any renewable portfolio package implemented in a state.

18.9.2.3 Stranded Costs. The Governors believe that states should continue to have clear authority to determine costs that are stranded or made unrecoverable by retail competition and to provide for the recovery of those costs, as the state deems it necessary or appropriate. States should maintain their authority to impose nonbypassable charges to recover retail stranded costs.

18.9.2.4 Disclosure. Many consumers will want to express their preferences for energy supply qualities with their choice of electricity supplier, while many suppliers will want to appeal to consumers with special power supply portfolios. The system governing wholesale electricity markets, which FERC oversees, must enable states to ensure that consumers are getting the information they need to make informed decisions and to verify that suppliers are delivering the products they promise. The Governors urge Congress to direct a federal entity, such as the National Academy of Sciences, to study and make recommendations on setting model national disclosure standards. The Governors are committed to working on such an effort and with all stakeholders to develop this model.

18.9.3 Federal Role

18.9.3.1 Regulate Wholesale Electricity Sales. The federal government, through the Federal Power Act and the Energy Policy Act, has the responsibility to regulate wholesale electricity sales and oversee the implementation of wholesale competition. The Governors believe that these responsibilities are consistent with state authority over retail sales and services. The federal government will determine the appropriate mechanism for recovery of wholesale stranded costs for federal power entities and power marketing administrations.

18.9.3.2 Empower States to Make Decisions and Take Actions. There are certain aspects of federal law that Congress can change to empower states to move forward successfully and facilitate the transition to competition. The Governors support the following changes to federal law that allow states to move forward, if a state chooses, with fewer obstacles.

18.9.3.2.1 PURPA. The Public Utilities Regulatory Policy Act (PURPA) of 1978 mandates utilities to purchase electricity from FERC-certified cogenerators and small power producers that rely on renewable energy resources. The Governors support the goal of increased use of renewable energy but recognize that reform of PURPA is necessary to remove barriers to effective competition. The Governors believe that Congress should authorize states to make the mandatory purchase provisions of PURPA inapplicable in a state that deems it necessary or appropriate. Although respecting existing PURPA contracts, the Governors recognize that many contracts reached under PURPA contribute to high electricity prices and encourage all parties to seek ways to reduce costs associated with these contracts.

18.9.3.2.2 PUHCA. Congress enacted the Public Utility Holding Company Act (PUHCA) of 1935 to remedy a broad range of abuses. Many states are moving toward competition and want to ensure that effective competition can survive with no return to the abuses of the 1930s. Congress should repeal unnecessary and burdensome PUHCA provisions and replace them with state and federal measures to ensure a transition to effective competition, after a thorough review to ensure that necessary consumer protections are adequately preserved.

18.9.3.2.3 Reciprocity Provisions. States allowing retail competition may be at a competitive disadvantage if utilities, in a state that has not yet implemented retail competition, are allowed to sell to customers in other states and at the same time unfairly limit access to historic customers. A state should be able to implement a reciprocity provision with respect to out-of-state suppliers if it deems it necessary.

18.9.3.2.4 Reliability. With restructuring of the industry, the creation of independent system operators, and greater diversity of generation ownership, electricity capacity margins have dropped and historical regulatory responses are more difficult to implement. As a result, legislation is needed establishing mandatory compliance with reliability standards and providing explicit authority to FERC and the states to cooperate to enforce those standards. Any national mandatory reliability standards must be flexible and should recognize and protect state responsibilities. They should allow for regional variations in system reliability needs, based on geographic and electrical system differences.

A strong savings clause in any federal legislation must recognize the role of the states in preserving their existing authorities and their ability to reasonably control their electricity systems. The states' views should be recognized and represented in both national and regional reliability organizations, and states should actively participate in the work performed by these organizations to review existing reliability criteria and design new ones. States should help to ensure that new reliability standards developed to meet competitive conditions balance reliability benefits with compliance costs. When a group of states devises reliability standards of the type being developed by the Western Interconnection, any legislation should ensure that deference is granted by the federal government to those states' decisions.

18.9.4 Facilitate Operations of State Institutions. The U.S. Department of the Treasury should promptly take administrative action to permanently preserve the tax-exempt status of existing debt associated with the transmission systems of public power utilities that choose to participate in Independent System Operators.

NGA Policy HR-10 was incorporated into NGA Policy EC-5, Homeland Security Comprehensive Policy, at the 2003 Annual Meeting.

Time limited (effective Annual Meeting 2003—Annual Meeting 2005).
Adopted Annual Meeting 2001; revised Winter Meeting 2002, Winter Meeting 2003, and Annual Meeting 2003.

RESPONSE FOR THE RECORD BY GUY F. CARUSO, ADMINISTRATOR, ENERGY INFORMATION ADMINISTRATION,

QUESTIONS FROM CHAIRMAN RALPH HALL

Question 1. What effect do you see the competition for LNG internationally playing on natural gas prices?

Answer 1. Currently, Liquefied Natural Gas (LNG) imports into the United States represent a small portion of the world LNG market (less than 10 percent) and an even smaller portion of domestic natural gas supplies (less than 3 percent). Also, a smaller portion of our import capacity is committed under long-term contracts than in other importing countries. As a result, our supply of LNG is more subject to market forces. Our domestic natural gas prices could also be affected if international supplies were either tight or in excess. For example, when more than a dozen nuclear reactors were closed in Japan early in 2002 and Japan substituted LNG imports to make up the shortfall, LNG imports to the United States were less than half of the level in 2001; however, in this case, low domestic natural gas prices also contributed to the decline in LNG imports. In the winter of 2002/2003, when abnormally cold weather in South Korea resulted in tight supplies, U.S. imports were somewhat less than they might have been otherwise, even with relatively high U.S. prices. As LNG supplies an increasing share of U.S. natural gas consumption, the impact of changes in LNG-related costs or a loosening or tightening of the international market will have a greater effect on domestic prices. Even so, increasing LNG imports into the United States should result in lower domestic gas prices than would occur otherwise.

Question 2. In your testimony, you state that in 2003, 67 percent of the petroleum consumption is consumed in the transportation sector and you see this percentage increasing to 71 percent in 2025. Do your projections include the federal hydrogen economy programs or state hydrogen economy programs such as California's? While there are not many, I know we have one hydrogen fueling station here in D.C. If your projections do not include the hydrogen programs, why not?

Answer 2. The Annual Energy Outlook 2005 (AEO2005) projections do include the anticipated impacts from Federal and State hydrogen programs. With respect to Federal programs, projections of regional hydrogen fuel prices and the associated availability of fueling stations developed for the FreedomCar program are used in the AEO2005 projections. In addition, Federal research and development programs are assumed to reduce the price of a fuel cell vehicle from current levels of $1,000,000 for a prototype vehicle to $71,000 by 2013. With respect to State programs, the AEO2005 projections reflect State-mandated sales of fuel cell vehicles, which are required under California's Zero Emission Vehicle program. Due to the higher incremental cost of hydrogen fuel cell vehicles and the lack of an established fueling infrastructure, hydrogen fuel cell vehicles are projected to account for only 0.4 percent of new vehicle sales by 2025, and that penetration is projected to be primarily the result of State-mandated sales requirements.

Question 3. In your testimony, you project renewable fuel consumption growing from 6.1 quads in 2003 to 8.5 quads in 2025. What role does wind and solar play in these calculations?

Answer 3. In 2003, wind energy accounted for 0.11 quadrillion Btu (quads), or 1.8 percent of total renewable energy consumption. By 2025, EIA projects wind to account for 0.36 quads, or 4.2 percent of total renewable consumption. Solar energy, including both electricity sold to the grid and solar heat and electricity produced by the end-user, accounted for 0.05 quads in 2003, or 0.8 percent of renewable energy consumption. EIA projects solar to account for 0.10 quad by 2025, or1.2 percent of total renewable consumption. These projections are based on current laws and regulations, including expiration of the Production Tax Credit for renewable electricity generation on December 31, 2005. Hydroelectric power and biomass combustion for heat and electricity account for most of the renewable energy consumption throughout the projection period.

QUESTION FROM CONGRESSMAN MIKE ROGERS

Question 1. Mr. Caruso, a constituent brought to my attention a reporting error that was made by the Energy Information Administration (EIA) in November of last year that disrupted natural gas markets on the New York Mercantile Exchange. My constituent claims the error cost the U.S. economy "billions" of dollars. Is this an accurate description of what occurred and its effect on the economy, and what is the EIA doing to ensure it does not happen again?

Answer 1. In the November 24, 2004, Weekly Natural Gas Storage Report (WNGSR), EIA reported working gas stock volumes that overstated the implied net withdrawal from underground storage by 32 Billion cubic feet (Bcf) for the week ending November 19. According to a Federal Energy Regulatory Commission (FERC) report about the incident, because of a clerical error, Dominion Transmission, Inc., submitted erroneous data to EIA; this data was then used by EIA in preparing the report released on November 24th. In accordance with EIA's current revision policy, established in 2002, EIA corrected the error in the next WNGSR, released on December 2, 2004, based on corrected data from the reporting company.

The November 24 WNGSR gave the impression that inventories were being drawn down at a faster pace than expected. The price of natural gas futures contracts on the New York Mercantile Exchange (NYMEX) for December increased $1.183 per MMBtu on November 24 from the price of the previous day. However, it cannot be stated with certainty how much prices were affected by the report. Prices rose immediately following the release of the report, but then flattened before rising sharply prior to the close of market trading. Since November 24 was the expiration date of the NYMEX contract for December delivery, there was no opportunity for the price of this contract to change in response to corrected information.

While many companies use the NYMEX settlement price for a given month as an index for gas procurement contracts involving gas purchases for the next month, many other purchasing strategies are employed, including long-term, fixed price contracts and contracts indexed to physical gas prices at various market centers. EIA does not collect the type of information that could provide for a systematic analysis of the report's impact on the cost of natural gas to consumers under the variety of contract types.

Following this occurrence, EIA has taken a number of actions to enhance the quality and reliability of the data used in preparing its reports. These include adding new survey review procedures, using more secondary data tools for context, reviewing the schedule and staffing around holidays on a case-by-case basis, and asking for greater attentiveness from data respondents. EIA has also asked for, and received, public comment on possible changes to the present policy regarding the timing for release of WNGSR revisions. We plan to announce the outcome of this review in the near future.

RESPONSE FOR THE RECORD BY HON. DAVID GARMAN, ASSISTANT SECRETARY FOR ENERGY EFFICIENCY AND RENEWABLE ENERGY, U.S. DEPARTMENT OF ENERGY

QUESTIONS FROM CHAIRMAN RALPH HALL

Yucca Mountain

Question 1. As you know, in 2002 the President recommended Yucca Mountain as the site for a geologic repository for nuclear waste. The Congress concurred by enacting the Yucca Mountain Development Act providing for development of the site. The next step in the process for the federal government to fulfill its contractual obligations is to submit a construction license application to the Nuclear Regulatory Commission (NRC). NRC will then begin a three to four year review process before deciding whether to issue a construction license for the project. Continued progress on this program is clearly linked to the Administration's energy policy that includes a continuing significant role for nuclear power.

I was disappointed by the Department's decision not to submit the license application in December 2004 as previously scheduled, but understand the importance of submitting a high quality application. Delays in the program will cost the federal government up to $1 billion a year, according to previous Department of Energy testimony, for both costs associated with defense waste in states like Washington and South Carolina and for delays in meeting the legal obligation to move civilian fuel beginning in 1998.

Are you committed to giving this program your priority attention so that the licensing process can move forward expeditiously and federal costs from undue delay minimized?

b. It was recently announced that Yucca would not be ready now until 2012, rather than 2010. I know the license application has been delayed about a year. What caused the additional delay?

c. What is the status of the rail car program for Yucca?

Answer 1. a. Yes, I am absolutely committed to giving the Yucca Mountain project priority attention. The success of the Program is necessary to protect public health and safety and the environment, to maintain our energy options and national security, to allow the cleanup of former weapons production sites, to continue operation of our nuclear powered naval vessels, and to advance our international non-proliferation goals. The Program is well situated for the future. It is moving ahead deliberately, step-by-step, toward development of a geologic repository at Yucca Mountain and the Administration continues its strong support of the Program as we move forward with its implementation.

b. The delays have been caused by the Court of Appeals' remand of the Environmental Protection Agency standard, by the inability to secure long-term stable funding for the program and by action by the Nuclear Regulatory Commission's Pre-Application Presiding Officer Board requiring that additional documents be placed into the Licensing Support Network.

c. The rail program for Yucca is moving forward with the acquisition process for the rail cars that will be required for the transportation of spent fuel to the Yucca Mountain repository. The Department held meetings with a number of rail car manufacturers in the fall of 2004, and, specifications that are necessary for the procurement of these rail cars are now being prepared. The Department plans to initiate the procurement of the rail cars in FY 2005, with contract awards taking place in FY 2006.

LANL Security

Question 2. Last summer, a problem was discovered with the security of disk drives at the Los Alamos National Laboratory. What is the status of security at the Los Alamos National Laboratory? What is the security status at the other labs.

Answer 2. On July 7, 2004, Los Alamos National Laboratory reported that two pieces of Classified Removable Electronic Media (CREM) appeared to be missing. On July 16, 2004, the laboratory director halted operations at LANL, based on both security and safety lapses.

On July 23, 2004, my predecessor ordered that all DOE operations using CREM, such as classified hard drives or computer discs, conduct an immediate stand-down to improve procedures for protecting such media.

LANL has completed the process of restarting operations, with the approval of DOE. DOE and NNSA have validated that LANL has centralized CREM holdings, significantly reduced holdings, eliminated some CREM by installing media-less computing systems, and held employees accountable through termination, suspension without pay, and written reprimands. Stricter controls and accountability of Secret/RD CREM have been instituted.

In December 2004, the FBI completed an investigation on the missing CREM and concluded that: "The unaccounted for pieces of CREM ... never were created and, therefore, (are) not missing from the inventory". Therefore, there was "no compromise of classified material." NNSA has taken corrective action to enforce accountability, improve handling of CREM and improve oversight (see below).

Answer 2. NNSA has made significant improvement in the readiness of our protective forces and the physical plants they defend at Los Alamos National Laboratory, Lawrence Livermore National Laboratories, Y-12 National Security Complex, Pantex Plant, and Nevada Test Site. NNSA is moving ahead smartly to ensure the special nuclear materials entrusted to the NNSA are stored in modern, secure facilities:

- Movement of material is underway from the TA-18 site at Los Alamos to the Device Assembly Facility on the Nevada Test Site
- Construction of the Highly Enriched Uranium Materials Facility at Y-12 for storage of materials has been accelerated.

LANL has implemented policies and procedures that include stricter controls and accountability of Secret/RD CREM by:

- Centralizing and significantly reducing CREM holdings,
- Eliminating CREM where possible, by installing media-less computing systems, and
- Holding employees accountable through termination, suspension without pay, and written reprimands.

The Safeguards and Security Program is strong. When mistakes are made or vulnerabilities discovered, corrective actions are quickly developed and applied complex-wide.

Strategic Petroleum Reserve Expansion

Question 3. Since the Strategic Petroleum Reserve is one of the nation's central energy security measures, and since it is the obvious wish of this Congress to increase the size of the SPR to 1,000,000,000 barrels, what is the reasoning behind decreasing funding for the SPR facilities development? Are the facilities already adequate in order to accommodate this increase in supplies?

Answer 3. The current capacity of the Strategic Petroleum Reserve storage facilities is 727 million barrels. It is the Administration's intent to fill the Reserve to 700 million barrels by August 2005. The Administration fully supports a robust Strategic Petroleum Reserve, and since the President directed the Department of Energy to commence fill in November 2001, we have added over 140 million barrels of oil to the inventory.

The President's budget request for the Strategic Petroleum Reserve in fiscal year 2006 reflects a slight decrease in the cost of field facilities from the previous 3 years, which reflected the costs of commissioning a now completed large degasification facility. The Strategic Petroleum Reserve budget is sufficient for all operations, maintenance, proposed fiscal year 2006 facilities construction and security.

CONSUMER FEDERATION OF AMERICA
May 9, 2005

RALPH HALL, *Chairman*
RICK BOUCHER, *Ranking Member,*
Subcommittee on Energy and Air Quality,

DEAR SIRS, Please find the responses to the post-hearing questions.

Question 1. Mr. Cooper, in your testimony, you state that the one-third of states that have deregulated their electric industries, primarily in the Midwest, Northeast, and Mid-Atlantic, have less reliable and more costly electricity prices that that of still fully regulated states. Isn't true that the states in question had higher electric costs that have come down as a result of deregulation and that those states that are still regulated today are generally low-cost states and therefore cannot be fairly compared with states that have had historically high electricity costs?

Response: This comparison is made to counter the misleading claims made by advocates of deregulation. The point of this comparison is three-fold. First, although it is true that rates have come down somewhat in "restructured" that is overwhelmingly the result of regulatory decisions and has nothing to do with the operation of the "market" for electricity. Second, the fact that many states had lower rates indicates that regulation can, in fact, serve consumer interests. Many of the states that are "lower cost" actually have worse resource endowments. Third, as the regulatory deals to lower rates come to an end, many of the restructured states are experiencing substantial price increases.

Question 2. You stated in your testimony that improvement to energy efficiency must be the central pillar of our national energy policy. This Committee agrees that energy efficiency is one of the cornerstones to a successful and comprehensive national energy policy. Is it your position that energy efficiency alone will alleviate the pressures on current energy markets? Considering how long energy-efficient technology takes to get to commercial viability and available to the consumer market, is it realistic to think that energy efficiency without concurrent increases in production will be able to add the much needed supply margin that encourages more stable markets?

Response: The Consumer Federation of America supports a balanced approach to energy policy, but we find that energy efficiency is frequently given short shrift in federal policy. Therefore, we believe it must be given primary emphasis in the current circumstances. Off the shelf energy efficiency technologies can substantially slow the growth of demand in the near terms and reduce it in the mid-term. Alternative sources of supply, like coal gasification, high-efficiency hybrid vehicles, will take longer to develop than efficiency.

Sincerely,

MARK COOPER, *Director of Research*
Consumer Federation of America

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Whirlpool Corporation

March 14, 2005

Congressman Ralph Hall, Chairman
Committee on Energy and Commerce
Subcommittee on Energy and Air Quality
U.S. House of Representatives
Washington, D.C. 20515

Dear Chairman Hall:

First, on behalf of the Board, Associates and staff of the Alliance, let me thank you for the opportunity to testify before your Subcommittee on February 10, 2005 on the Energy Policy Act of 2005. We very much appreciated the opportunity to discuss with you and your colleagues the importance of assuring that national energy policy deploys America's greatest resource – energy efficiency – to the greatest extent possible.

This letter transmits the formal, written responses to the three questions provided to me subsequent to the hearing. I ask that they be made a part of the formal hearing record. If there is anything else that the Alliance or I can do to assist you and the Subcommittee as you pursue the urgent work of developing meaningful national energy legislation, please call on us.

With best personal regards,

Kateri Callahan

Enclosures

cc: The Honorable Rick Boucher, Ranking Member
Subcommittee on Energy and Air Quality

Alliance to Save Energy
March 14, 2005

Questions in Response to Kateri Callahan's Testimony before the House Energy and Commerce Committee, Subcommittee on Energy and Air Quality on February 10, 2005

Question #1:

The Alliance has stated in its testimony, one of the tools to upgrade efficiency in the federal government is the Energy Savings Performance Contracts (ESPCs). The discussion draft includes a reauthorization of this program, however with monetary constraints not previously attached. As you know, this Committee has objected to CBOs characterization of these ESPCs as expenditures and we disagree with the scoring that they have attached to this measure. However, in order to maintain the fiscal responsibility that is a priority of this Congress, a spending cap has been placed on the ESPCs equally with other programs that receive direct allocations. Since you believe that this program should receive more funding, this Committee would be happy to hear your recommendations on how to address the scoring issue.

Response to Question #1:

We are working now with the House and Senate Budget Committee, the OMB, the Department of Energy and with your staff to seek a solution to this scoring problem.

The problem, as you are aware, is that the Congressional Budget Office (CBO) has scored the private industry investments under ESPC contracts as mandatory federal outlays without accounting for the offsetting, discretionary savings in federal energy bills. CBO fails to recognize that ESPC project contracts require the private sector to guarantee energy savings to the government, and that the entire costs of the project are paid for from these guaranteed utility bill savings. The CBO score conveys the false impression that ESPC's require billions of dollars of new federal spending when in fact there are no new budget outlays.

CBO has acknowledged that the program is quite different from other privatization actions on the part of the government. And, since the Committee disagrees with the CBO scoring, as do we, we believe it would be useful for the Members of this Committee, as well as the House Budget Committee, to clearly see the cost and savings information related to ESPC contracts displayed in a somewhat different manner than traditional budget scoring provides. One option, which we recommend, would be to ask CBO to provide analysis of the complete and long-term budgetary impact of the ESPC program, including the history and projections for discretionary savings used to repay these contracts, as well as any additional savings that have/are projected to accrue beyond what the government is obligated to use for contract repayment.

The Alliance to Save Energy suggests that the Committee's request to CBO for such an analysis include:

(1) An examination of the long term budgetary impact of government use of ESPCs, including actual and projected cost savings of ESPCs;
(2) An evaluation of the budget impact versus not updating the energy infrastructure in the federal facilities; and,
(3) An evaluation of the budget impact versus timely upfront appropriations, along with some judgments about whether such appropriations likely would be forthcoming for non-crisis infrastructure investments.

Such an analysis, we believe, would help Members of Congress understand the net zero budgetary impact of this program, even if it may not resolve the scoring issue.

The Alliance to Save Energy currently is working with the House and Senate Budget Committees to craft such a request to CBO, and also is working with Budget Committee staff to identify alternative approaches to the scoring issue. We stand ready to assist the House Energy and Commerce Committee to permanently authorize the ESPC program **without limitation** in order to realize the full energy efficiency gains and taxpayer savings made possible by this program.

Thank you for your expressed support for ESPC's, and for allowing us to work constructively with you and your Committee.

Question #2:
The Alliance suggests in its testimony that one of the ways to reduce our reliance on foreign sources of energy would be to improve energy efficiency in the transportation sector, specifically by altering CAFE standards. The Alliance has suggested the approach of "closing the CAFE loophole" and terminating the credit for dual-fuel vehicles. Wouldn't reducing the incentive for alternative fuel-burning technology be counterproductive in the overall effort of achieving greater dependence on domestic sources of energy?

Response to Question #2:

The Alternative Motor Fuels Act of 1998 (P.L. 100-94) allows automakers to receive credits toward meeting Corporate Average Fuel Economy (CAFE) requirements for the manufacture and sale of "dual fueled" vehicles, which are vehicles capable of running on both petroleum-based fuel and a non-petroleum-based fuel such as ethanol (E-85). ***Auto makers receive credit for dual fueled vehicles under CAFE as if they ran on E-85 50 percent of the time.*** Until this year auto makers could use credits for dual fueled vehicles to reduce the required average fuel economy of their entire car and light truck fleets by up to 1.2 miles per gallon.

Last year, as allowed by the Alternative Motor Fuels Act, the U.S. Department of Transportation (DOT) extended the credit for dual fueled vehicles until 2008, with a reduced cap of 0.9 mpg.,with the stated goals of spurring the continued development and use of alternative fuel vehicles, and extending the use of ethanol as a means to decrease U.S. reliance on foreign petroleum.

While these may be worthwhile goals, even the DOT realizes that dual fueled vehicles are not currently achieving them. According to a March 2002 study conducted by the DOT, the U.S. Department of Energy and EPA, dual fueled vehicles run on E-85 ***approximately 1 percent of the time.***[1] The National Highway Traffic Safety Administration (NHSTA) reports that as of 2004, 3.4 million dual-fueled vehicles have been produced. However, there are only 207 public and private E-85 refueling sites in 30 states[2], so there is not enough refueling infrastructure to support significant use of E-85.

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[1] Report to Congress: Effects of the Alternative Motor Fuels Act CAFÉ Incentive Policy, U.S. DOT, U.S. DOE, EPA, March 2002.

This dual fuel credit has encouraged manufacturers to put millions of dual fueled vehicles on the road, but those vehicles are not using any less gasoline or any significant amount of ethanol. Worse, by effectively lowering fuel economy standards for the rest of the fleet, it has allowed manufacturers to put more gas guzzlers on the road. Thus ***the dual fuel credit does not significantly increase demand for ethanol, but does substantially increase gasoline use and petroleum imports.***

The credit should either be terminated or be modified to require actual use of the alternative fuel. Even the DOT study noted above recommends examining alternatives to the current dual fueled vehicle CAFE credit structure in light of the fact that the vehicles are not actually using large quantities of E-85. The report recommends linking the CAFE credit to actual alternative fuel used.

If the Congress were to revise the dual-fuel vehicle CAFE credit program to require use of the alternative fuel, it could be structured as follows:

- Require all new dual fueled vehicles qualifying for the credit to be clearly identified at the time of sale with both a prominent label and a permanent marking (e.g., inside the gas cap door);
- Require that manufacturers load new dual fueled vehicles exclusively with alternative fuel;
- Allow a small fuel economy credit (perhaps 0.3 mpg) solely for the production of dual fueled vehicles, in order to maintain an incentive to continue producing some of the vehicles,
- Base any additional credit on actual use of the alternative fuel. The DOT could estimate the average use of alternative fuels by dual fueled vehicles based on sales of E-85 and the production of dual fueled vehicles in previous years. This would provide an incentive for ethanol use, rather than just production of vehicles, while minimizing the increased petroleum use due to weakening the CAFE standards.

By restructuring the credit in this manner, manufacturers would retain a considerable incentive to produce dual fueled vehicles *and* would gain a stake in encouraging the development of E-85 infrastructure and the sale of ethanol. In addition, the credit would give consumers a greater awareness of their ability to use ethanol, and would save substantial amounts of petroleum.

Question#3:
The Alliance supports a "feebate" system, whereby more fuel inefficient vehicles would be charged an additional fee and more energy efficient vehicles would actually receive a rebate based on the expected lifetime fuel consumptions of the vehicle. Would the rebate apply to vehicles currently getting an average of 24 mpg? Or would it be reserved for hybrid technology and other vehicles that get more than 40 mpg? This would in effect raise the price of every

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[2] Alternative Fueling Station Counts by State and Fuel Type, Alternative Fuels Date Center, Clean Cities Website, U.S. Department of Energy, 2005

passenger vehicle, by assessing the fee on 99 percent of vehicles sold in the US and where the waiting list is so long that many consumers would be forced to buy, what you might consider, a more fuel inefficient vehicle.

Response to Question #3:

Thank you for the opportunity to clarify how a feebate would work. As you stated, the idea of a feebate is that a rebate for fuel-sipping vehicles is paid for by a fee on gas-guzzling vehicles. The program is intended to be revenue neutral, with the fees collected covering the rebates provided.

The point at which fees and/or rebates are set (the "set point" or "dividing line") can be determined in many different ways, and can be established so that there are vehicles (in the "set point" range) that have no fee assessed or rebate provided, e.g., if the "set point" were established based on the current CAFÉ standard of 27.5 mpg, then vehicles meeting that fuel economy would receive no fee or rebate.

We recommend that any feebate apply to manufacturers of all light-duty passenger vehicles, including SUVs and minivans, and that the fee/rebate be based on the anticipated gasoline use of the vehicle over its lifetime. For example, the projected mileage driven over the lifetime of a vehicle is 160,000 miles. If the "set point", or dividing line, were established at 24 mpg as you suggested in the question, and the "assessment" per gallon of gasoline consumed was established at 25 cents, then a vehicle meeting today's CAFÉ standard of 27.5 mpg would be eligible for a $312 rebate. (160,0000 miles divided by 24 mpg and then multiplied by 25 cents equals $1667.00 – representing the "set point" versus 160,0000 miles divided by 27.5 mpg multiplied by .25 equals $1455. The difference between the two is $312.00.) Conversely, a vehicle achieving only 21 mpg would be assessed a fee of $237.00. (The difference between the set point of $1667 and the calculated fuel use fee, i.e., 160,000 miles divided by 21 and then multiplied by .25 equals $1904.)

The attached sheet which details feebate system approaches, benefits and costs is provided for the Committee's further information and made a part of the formal response to the question.

We would recommend setting this dividing line between fees and rebates each year such that the total fees would just pay for all the rebates, so there would be no net revenue or cost to the government. Also, we would suggest that the Committee consider establishing a separate set point for each class of passenger vehicle, as discussed in the attached document to minimize potential costs to the domestic auto manufacturers. As indicated, under an eleven class system, GM vehicles, on average, actually receive a rebate. In any scenario, buyers of vehicles with superior fuel economy will benefit.

A feebate would create an incentive for manufacturers to use fuel-efficient technologies in the vehicles they produce, and hence should increase the availability of efficient vehicles, as well as creating an incentive for consumers to purchase more efficient vehicles. As fuel economies increase, the set-point would be ratcheted up, creating an incentive for continual improvement, but one that is never out of line with the existing market. If successful, a feebate could make CAFE standards irrelevant, as fleet average fuel economies were driven up by market forces.

Further, and importantly, this policy is consistent and complementary to tax incentives for hybrid and other advanced, efficiency vehicles, which are designed to help give new technology a foothold in the marketplace.

(Please read on for a more detailed analysis of feebates)

Alliance to Save Energy Discussion Piece on Feebates

The Alliance is exploring a national feebate system as a mechanism to encourage efficiency of light-duty cars and trucks. Such a system would impose a fee or rebate on new vehicles based on the expected lifetime fuel use of the vehicle. A feebate can be revenue neutral or not, depending on where the "set-point" is established; purchasers of vehicles above the set-point (with poor fuel economy) would pay a fee and purchasers of vehicles below the set point (with better fuel economy) would receive a rebate.

Many variations of feebates have been suggested and discussed. The simplest would use a single gallon-per-mile (GPM) rate – say $500 per 0.01 GPM -- and a single set-point for all passenger cars and light trucks. [3] David Greene at Oak Ridge National Laboratory estimates savings from a $500 per GPM revenue-neutral (approximately) feebate would increase car fuel economy to 31.8 MPG (13%) and light truck fuel economy to 26 MPG (25%) after about 6 years. A $1,000/0.01 GPM feebate would increase car fuel economy to 35.2 MPG (25%) and light truck fuels to 29.2 (40%) after 6 years.

Vehicle Classification

For purposes of a feebate, vehicles can be classified any number of ways, including (for example):

- Passenger cars and light trucks can be combined (as in the example above);
- Passenger cars and trucks can have different set points; and,
- Vehicles with different attributes – e.g., weight, size, horsepower – can have different set points.

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[3] Most economists prefer feebates based on gallons-per-mile (GPM) since this equates to gallons of fuel used by the vehicle. MPG, on the other hand, is not by itself a sufficient parameter to measure efficiency since it is inherently higher for smaller cars and lower for larger vehicles. For example, an increase in a large truck's fuel economy from 10 MPG (equal to 0.1 GPM) to 12 MPG (0.083) would be rewarded the same as a small car improvement from 40 MPG (0.025) to 80 MPG (0.0125). By contrast, a feebate based on MPG would give 20 times more incentive to the small car with a 40 MPG improvement than the large truck with only a 2 MPG improvement. But over the life of the vehicles, the savings from the 2-MPG improvement in the truck will be far greater than the savings from the small car.

As discussed below, the classification system may or may not have much impact on overall fuel economy improvement. It will, however, have a significant effect on how different vehicle manufacturers are affected. In general (but not always), the more classes, the better the American auto manufacturers fare. With a single set-point for passenger cars and light trucks, passenger cars would receive a majority of the rebates, while trucks would pay most of the fees. This would push consumers to purchase more cars relative to trucks, thus slowing (perhaps even reversing) the trend toward purchasing trucks for "non-truck" purposes.

As shown in the figure, Daimler Chrysler (DCC) is best off under a 2-class system. Ford (FMC) and General Motors (GM), on the other hand, are best off under an 11-class weight-based system; in which GM vehicles, on average, actually receive a rebate. In either case, buyers of vehicles with superior fuel economy will benefit.

According to Greene, the way that vehicles are classified will have a small impact on the overall energy savings. This is based on the assumption that 80-90% of the impact of a feebate will come from adoption of new technology by manufacturers, rather than consumers shifting between different vehicle classes. It is important to note that if that assumption does not hold, a two-class system would exacerbate the shift from cars to trucks that has occurred over the last two decades -- as prospective buyers of inefficient cars subject to fees instead purchase "high-efficiency" trucks. A multi-class weight-based system could be even worse, driving buyers into higher weight classes with higher-GPM allowances.

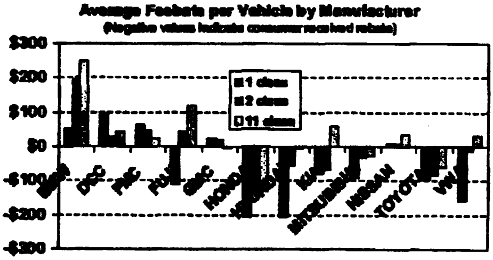

Fig. 3. Average feebate per vehicle by manufacturer.

Source: David L. Greene, et al, *Feebates, rebates and gas-guzzler taxes: a study of incentives for increased fuel economy*, Energy Policy 33 (2005) 757–775.

A feebate system also could be developed based on multiple weight or size classes, or even a combination of the two. A classification system based on weight efficiency (volume of passenger and cargo area per pound), for example, could encourage use of light weight materials, while reducing incentives to down-size (and thus adversely affect the safety) of the vehicles.

Set points

Vehicle set points can be established at a single point within each class of vehicle or at two points. A single set point would attach a fee or rebate to the entire class of vehicles. Alternatively, two set points could be established in a vehicle class, so that the best vehicles - -

top 25% of fuel economy -- received a rebate and the worst vehicles –bottom 25% -- were subject to the fee. This would leave out the middle 50% of vehicles, for which the fees and rebates will be relatively small anyway. The impacts on energy use from exempting the mid-range vehicles from the feebate will be relatively small and it would reduce the administrative burden of collecting fees and paying rebates.

Feebate set points, as noted above, also determine whether the feebate is a source of revenue, a tax expenditure, or is revenue-neutral. Establishing a revenue-neutral set point requires forward projection of the dollar value of fees versus rebates. There would need to be some system for "truing up" at the end of each year to maintain revenue neutrality.

Feebate Rates

Feebate rates are typically discussed in the $500/0.01 GPM to $2,000/0.01 GPM range. For reference, a $500/0.01 GPM feebate is equivalent to about 47 cents/gallon of fuel consumed over the life of the vehicle. If implemented starting in 2006, a $500 feebate could reduce annual US petroleum consumption by roughly 0.3 Quads by 2010 – about 10% of projected growth in light vehicle petroleum consumption.[4]

Impacts on Manufacturers' Sales and Revenues

According to Greene, a revenue neutral feebate would increase overall manufacturers' sales revenue. Any decrease in vehicle sales would be more than offset by increased manufacturers' revenues from higher vehicle prices.

As shown in the table below, increased revenues resulting from vehicle price increases is determined by the feebate rate. A $500/0.01 GPM feebate would increase the average vehicle price by about $530, regardless of how vehicles are classified. A $1,000/0.01 GPM feebate would increase average vehicle prices by roughly twice that amount (just under $1,000). There is a corresponding increase in manufacturers' annual sales revenues of just under $9 billion for a $500/0.01 feebate and just over $16 billion for a $1,000/0.01 GPM feebate.

Lost sales revenues are determined by the feebate rate and the way that vehicles are classified. A $500/0.01 GPM feebate will result in lost sales of between $6.2 and $8.4 billion, depending on how vehicles are classified. A multi-class system is better than a single class system in terms of manufacturers' overall revenues. Lost sales from a $1,000/0.01 GPM feebate are more than twice the lost revenues from a $500/0.01 GPM feebate. Note that sales revenues decrease disproportionately to the decrease in the number of vehicles sold, because vehicles with low fuel economy tend to be the higher-priced vehicles. Under a $500/0.01 GPM feebate, vehicle sales would decrease by about 86,000 vehicles; a $1,0000/0.01 GPM feebate would reduce vehicle unit sales by 267,000.

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[4] Alliance calculations based on estimates by Greene. Alliance assumes $500/0.01 GPM feebate imposed beginning 2006 and continuing beyond 2010. According to David Greene, et al (in Feebates, Rebates and Gas Guzzler Taxes: A Study of Incentives for Increased Fuel Economy, no date, p, 23), a $500/0.01 GPM feebate would save 0.2 million barrels per day (0.4 Quads) in 2010, 1.4 mmbd in 2020 and 2.1 mmbd in 2030. In his analysis, Greene assumes the feebate starts in 2005, thus the 2010 savings are based on six years of being in place. Based on his anticipated phase-in of effects, the annual savings after 5 years (2006 through 2010) will be 69% of Greene's 2010 savings estimate -- thus 0.3 Quads.

In sum, the net change in manufacturers' revenues – i.e., increased revenues from price increases less decreased revenues from vehicles sales – is minute relative to the auto industry's total sales revenues of about $700 billion.

Feebate Impacts on Manufacturers' Revenues (and percent of total US sales revenues)				
Policy Case	Average Vehicle Price Increase ($)	Revenues from Price Increases ($ billion)	Revenues from Lost Sales ($ billion)	Net Change in Revenues ($ billion)
$500/0.01 GPM Single system	520	8.6 (1.2%)	-8.4 (1.2%)	0.2 (0.03%)
$500/0.01 GPM 2-class (cars and trucks)	529	8.7 (1.2%)	-7.2 ((1.0 %)	1.5 (0.2%)
$500/0.01 GPM 11-class (weight based)	531	8.8 (1.3%)	-6.2 (0.9%)	2.6 (0.4%)
$1,000/0.01 GPM 2-class (cars and trucks)	987	16.1 (2.3%)	-15.7 (2.2%)	0.4 (0.06%)

March 14, 2005

The Honorable Ralph M. Hall, Chairman
Subcommittee on Energy and Air Quality
Committee on Energy and Commerce
United States House of Representatives
Washington, D.C. 20515

Dear Mr. Chairman:

On behalf of the U.S. Nuclear Regulatory Commission (NRC), I want to express my appreciation to you and the other Members of the Subcommittee on Energy and Air Quality for inviting NRC to testify at the February 10, 2005 hearing on the Energy Policy Act of 2005. I was pleased to provide the Subcommittee with the NRC's views on the nuclear-related provisions of H.R. 6, as reported by the conference committee. Enclosed please find NRC's responses to the Subcommittee's questions forwarded to me by your letter dated February 28, 2005.

During the hearing, I committed to provide the Subcommittee with additional information regarding a ruling by the Commission's Atomic Safety and Licensing Board (Board) on August 31, 2004, with respect to the Department of Energy's (DOE) certification concerning compliance with the so-called "LSN" rule. A copy of that decision is enclosed for your information. In particular, the Board determined that DOE failed to provide all relevant documents on the proposed Yucca Mountain repository site in electronic form through the publicly available, web-based Licensing Support Network (LSN). While this ruling affects the timetable for DOE's submission of its application, it does not reflect a substantive resolution of any matter that may ultimately need to be evaluated in such application.

The LSN was created by the Commission to better enable it to issue a licensing decision on DOE's application for a construction authorization for Yucca Mountain in the timeframe provided by the Nuclear Waste Policy Act – three years, with a possible extension to four. To this end, the Commission's regulations regarding the conduct of any hearing on this application establish the LSN as a means to facilitate the discovery of relevant documents by all potential participants in advance of the submission of the application. Accordingly, the regulations require that DOE certify its compliance with the LSN provisions six months before it submits an application, with following dates for the NRC staff and others. This web-based system can be accessed at http://www.lsnnet.gov.

DOE's certification that its documents were available, made on June 30, 2004, was challenged by the State of Nevada, and others. After hearing argument from DOE, the State and the NRC staff, the Board ruled that DOE failed to provide all relevant documents on the LSN. Specifically, the Licensing Board found that the June 30 certification failed to make publically available substantial quantities of documentary material in DOE's possession at the time of certification, and that the manner in which DOE made the material publicly available on its own internet web site failed to satisfy the regulations. To date, DOE has not submitted its recertification. I would note that the certification made by the NRC staff on July 30, 2004 –

30 days after DOE's certification – was not disputed.

I appreciate the Subcommittee's interest in the views of the NRC on the nuclear-related provisions of H.R. 6. The NRC would welcome the opportunity to work with your Subcommittee and the Subcommittee's staff, with respect to this important legislation. If you need further information, please do not hesitate to contact me.

Sincerely,

/RA/

Luis A. Reyes
Executive Director
for Operations

Enclosures:

1. Responses to Questions
2. Atomic Safety and Licensing Board's Order
   and Memorandum

cc w/encls: Representative Rick Boucher, Ranking Member
Representative Albert R. Wynn

I appreciate the Subcommittee's interest in the views of the NRC on the nuclear-related provisions of H.R. 6. The NRC would welcome the opportunity to work with your Subcommittee and the Subcommittee's staff, with respect to this important legislation. If you need further information, please do not hesitate to contact me.

Sincerely,

Luis A. Reyes
Executive Director
for Operations

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2. Atomic Safety and Licensing Board's Order and Memorandum

cc w/encls: Representative Rick Boucher, Ranking Member
Representative Albert R. Wynn

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Response Accession No.: **ML050630412**

* Concurrence on the letter only
** Concurrence on Enclosure 1 only

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RESPONSES TO QUESTIONS FROM THE U.S. HOUSE OF REPRESENTATIVES SUBCOMMITTEE ON ENERGY AND AIR QUALITY, FEBRUARY 28, 2005

QUESTION 1:

Included in the draft bill are three new nuclear security provisions. These provisions would strengthen authorities to use weapons at nuclear plants to protect nuclear materials, prevent the unauthorized introduction of weapons at nuclear facilities, and increase penalties for sabotage of nuclear facilities. Can you tell how these provisions will be useful to protect nuclear plants?

ANSWER:

As stated in the NRC Chairman's September 27, 2004, letter to Chairman Joe Barton, the NRC has acted promptly and aggressively to increase security at nuclear power plants and other facilities, and for radioactive material it regulates. Enactment of these provisions would further enhance the security of the United States, providing additional protection from terrorist activities involving nuclear facilities or radioactive material.

The authority provided by the provision on use of firearms by security personnel of NRC licensees would allow the Commission to authorize security personnel who protect nuclear facilities and materials to possess more powerful weaponry. For example, some Federal laws and various State laws contain prohibitions against possession of certain weapons. State laws also vary regarding the circumstances in which private security personnel may use weapons. It is important that security personnel assigned with protection of such facilities and materials have the most effective and modern weaponry available to respond to malevolent acts. This provision would provide the potential for defense against prosecution under State or local law of private security personnel for actions taken to protect Commission-designated nuclear facilities, radioactive material, or sensitive nuclear-related property from sabotage or theft.

In a similar manner, the specific prohibitions against introducing unauthorized weapons or explosives into a privately owned and operated nuclear power plant are currently too limited. There is no Federal law permitting the imposition of criminal sanctions against the person responsible for bringing the weapon or other dangerous instrument to the site. Because of the potential danger to the public's safety and security from unauthorized introduction of weapons or other dangerous instruments into these sites, enactment of this provision is important. The provision regarding sabotage of nuclear facilities, fuel, or designated material would also provide criminal sanctions for sabotage or attempted sabotage of commercial nuclear facilities, fuel, and Commission-designated material or property not previously covered. For example, it would add to the current provision primary facilities or backup facilities from which a radiological emergency preparedness alert and warning system is activated. It would also make clear that facilities covered by the provision would be covered during the period of construction, as well as its period of operation. This provision would assist the efforts to protect nuclear facilities, radioactive material, and other property subject to the authority of the Commission against nuclear theft or radiological sabotage.

QUESTION 2:

The NRC has not licensed a new nuclear plant in the United States for over twenty years. What is your opinion on when we might actually see the next new nuclear plant licensed and constructed in the United States?

ANSWER:

Based on information from several potential applicants, NRC currently expects to receive one or more combined construction permit and operating license applications for new nuclear power plants in 2008. The NRC's review of a combined license application that references a certified reactor design with an early site permit is currently estimated to take about 30-33 months, utilizing the provisions of 10 CFR Part 52. The applicant can begin construction upon receiving the license. Potential applicants have informed the NRC that construction is estimated to take approximately 4 years to complete.

The NRC is ready to accept and process applications utilizing the provisions of 10 CFR Part 52 which provides a stable and predictable licensing process. This process ensures that all safety and environmental issues, including emergency preparedness and security are resolved prior to the construction of a new nuclear power plant. The design certification part of the process resolves the safety issues related to the plant design, while the early site permit process resolves safety and environmental issues related to a potential site.

The Commission has already certified three new reactor designs making them available for new plant orders, with a fourth design certification in progress. The NRC staff has four other advanced reactor designs in various stages of pre-application review. The NRC staff is also actively reviewing three early site permit applications received in late 2003 for sites in Virginia, Illinois, and Mississippi where operating reactors already exist. The NRC staff has established schedules to complete the safety reviews and environmental impact statements in approximately two years from the date of those applications. The mandatory adjudicatory hearings associated with the early site permits will be concluded after completion of the NRC staff's technical review.

QUESTION 3:

In your testimony you state that Sec. 661 of the bill related to a reevaluation of the Design Basis Threat is no longer needed. Why? Has this reevaluation been completed?

ANSWER:

The re-evaluation of the Design Basis Threat sought in Sec. 661 has already been completed by the Commission. Following the terrorist attacks on September 11, 2001, the NRC conducted a comprehensive review of the domestic and international threat environment. After the events of 9/11, the NRC worked with intelligence and law enforcement agencies and Federal and State authorities to provide the basis to supplement the NRC's Design Basis Threats (DBTs). In April 2003, the NRC issued Orders to the operators of nuclear power plants and certain fuel fabrication facilities to enhance security programs and revise security plans to protect against the supplemented DBTs. The NRC subsequently reviewed and approved these enhancements and revised plans, and is currently verifying effective implementation of these enhancements through its baseline physical security and force-on-force inspection program. The NRC expects to commence a rulemaking on its DBT later this year.

LBP-04-20

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD

Before Administrative Judges:

Thomas S. Moore, Chairman
Alex S. Karlin
Alan S. Rosenthal

In the Matter of	Docket No. PAPO-00
U.S. DEPARTMENT OF ENERGY	ASLBP No. 04-829-01-PAPO
(High Level Waste Repository: Pre-Application Matters)	NEV-01
	August 31, 2004

MEMORANDUM AND ORDER
(Ruling on State of Nevada's July 12, 2004 Motion to Strike)

This proceeding concerns the pre-license application phase of the United States Department of Energy's (DOE) planned application for a license to construct a repository for high-level radioactive waste (HLW) at Yucca Mountain, Nevada.[1] Before this Board is a motion by the State of Nevada (the State) challenging the sufficiency of DOE's production of documentary material under 10 C.F.R. § 2.1003(a) and seeking to strike DOE's June 30, 2004, certification regarding the availability of its documentary material.[2] After due consideration of the written presentations and the representations at an extended oral argument, we conclude that DOE did not meet its regulatory obligation to make all of its documentary material available and grant the motion to strike DOE's certification.

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[1] In our July 9, 2004 Initial Pre-License Application Phase Order, 69 Fed. Reg. 42,465, 42,467 n.3 (July 15, 2004), we directed the participants to use the participant codes specified in Appendix II to the Order for all filings in this proceeding. Upon further consideration, we rescind that portion of the July 9, 2004 Order, but note that in the future such participant codes likely will have to be used for the identification of exhibits.

[2] Motion to Strike the Department of Energy's LSN Certification and for Related Relief (July 12, 2004) [hereinafter State Motion].

I. BACKGROUND

A. Statutory and Regulatory Background

Twenty-one years ago, Congress enacted the Nuclear Waste Policy Act (NWPA), establishing a comprehensive program for the identification, licensing, construction, operation, and regulation of geologic repositories for the disposal of HLW. See Pub. L. No. 97-425, 96

C. §§ 10101-10270). The purpose of NWPA was "to establish a schedule for the siting, construction, and operation of repositories that will provide a reasonable assurance that the public and the environment will be adequately protected from the hazards posed by [HLW]." 42 U.S.C. § 10131(b) (emphasis added). NWPA charges DOE with the responsibility of constructing and operating any such repositories, and preparing and submitting any license applications for them. See id. §§ 10132-10134. The Commission is assigned the responsibility of deciding whether licenses should be issued and of regulating any such repositories. See id. §§ 10134(d), 10141(b). More specifically, NWPA mandates that the Commission issue a final decision not later than three years after DOE submits the license application. See id. § 10134(d).

In 1987, the Nuclear Waste Policy Amendments Act (NWPAA) was enacted, Pub. L. No. 100-203, §§ 5001-5065, 101 Stat. 1330, 1330-227 to 1330-255 (1987) (codified in scattered sections of 42 U.S.C.), making Yucca Mountain, Nevada, the sole focus of the nation's HLW geologic repository program and the only site that DOE could lawfully consider. See id. § 10133(a). Since that time, the Federal Government, the State of Nevada, interested members of the public, and the nuclear industry have focused much attention on this designated location approximately 90 miles northwest of Las Vegas, Nevada. DOE has already spent seven billion dollars on characterization and other related activities at Yucca Mountain and estimates that a total of $50 billion will be spent during the lifetime of the project. See H.R. Rep. No. 108-594, at 3 (2004). DOE has generated reams of scientific and technical studies and data in preparation for its forthcoming license application for this site.[3] Meanwhile, the Environmental Protection Agency (EPA) and the Commission both issued regulations establishing the criteria that DOE must meet to obtain a license, and the Commission issued 10 C.F.R. Part 2, Subpart J, the procedural regulations governing the conduct of the licensing proceedings.[4]

Recognizing the enormous amount of documentary material related to the site, and the substantial national, state, and local interest in this matter, Subpart J includes several provisions designed to expedite and to assist the Commission in achieving the three-year deadline for the Yucca Mountain licensing proceeding. These include the creation of the Licensing Support Network (LSN), a web-based system for making documents electronically available to all participants, see 10 C.F.R. §§ 2.1001 and 2.1011, and the establishment of a detailed sequence of events that must occur within the three-year period, see 10 C.F.R. Part 2, Appendix D.

Perhaps one of the Commission's most important mechanisms for meeting the three-year licensing deadline is its requirement that DOE and any other person concerned with Yucca Mountain participate in a document discovery phase lasting at least six months and preceding DOE's license application. See 10 C.F.R. § 2.1012. Because the three-year deadline does not begin until after DOE submits its license application, this "pre-license application phase" adds at least six months to the front end of the proceeding. The six-month document discovery phase is enforced by the regulations stating that the Commission "will not docket the application until at least six months have elapsed from the time of [DOE's] certification" that it has made all of its documentary materials electronically available. 10 C.F.R. § 2.1012(a).

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[3] Six months ago John Arthur, Deputy Director of DOE's Office of Repository Development indicated that "[t]he DOE input to LSN is projected to contain approximately 30 million pages, comprising about 3 million documents." State Motion, Exh. 1, Summary of the [NRC]/[DOE] Quarterly Management Meeting in Rockville, Maryland on February 19, 2004, at 3.

[4] EPA issued 40 C.F.R. Part 197, Public Health and Environmental Radiation Protection Standards for Yucca Mountain, Nevada. See 66 Fed. Reg. 32,074 (June 13, 2001). The Commission issued Yucca Mountain specific licensing standards in 10 C.F.R. Part 63, Disposal of High-Level Radioactive Wastes in a Proposed Geologic Repository at Yucca Mountain, Nevada. See 66 Fed. Reg. 55,732 (Nov. 2, 2001).

From the outset, DOE fully endorsed and supported the six-month document discovery phase in its comments on the Commission's proposed rule: "'[DOE is] committed to ensuring that interested members of the public have a full six months in advance of its submission of the license application to review the Department's documentary material.'"[5] All parties before us supported the six-month period.[6]

Closely related to the six-month pre-application phase is the LSN, which is "the . . . system that makes documentary material available electronically to parties." 10 C.F.R. § 2.1001. It is a computer-based electronic system designed to streamline the document discovery process and to coordinate the massive amount of documentary material pertaining to Yucca Mountain. The purpose of the LSN, initially referred to as the Licensing Support System (LSS), was made clear at the outset:

> The LSS is intended to provide for the entry of, and access to, potentially relevant licensing information as early as practicable before DOE submits the license application . . . . All parties would then have access to this system well before the proceeding begins. Access to these documents will be provided through electronic full text search capability. This provides the flexibility of searching on any word or word combinations within a document and thus facilitates the rapid

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[5] 66 Fed. Reg. 29,453, 29,459 (May 31, 2001) (quoting Letter from Ivan Itkin, Director, DOE Office of Civilian Radioactive Waste Management to A. L. Vietti-Cook, NRC Secretary, enclosing comments on proposed rule (Oct. 6, 2000) at 2, ADAMS Accession No. ML003759117 [hereinafter DOE Proposed Rule Comments Cover Letter]. Further, DOE stated that it "fully supports the objective of ensuring that interested members of the public have comprehensive and early access to relevant documentary material, so as to facilitate early identification and resolution of licensing issues, as well as preparation for the NRC's formal licensing proceeding. Indeed, this basic objective has been at the heart of the NRC's deliberations since 1988 over how best to structure an efficient, effective document retrieval system to support its formal licensing proceeding for a geologic repository, so as to permit the NRC to meet its statutory obligation to complete its licensing proceeding in three years." [DOE] Comments on Proposed Revisions to the 10 CFR Part 2 [LSN] Design Standards for Participating Websites (Oct. 6, 2000) at 1, ADAMS Accession No. ML 003759117 [hereinafter DOE Proposed Rule Comments].

[6] See 66 Fed. Reg. at 29,458 (discussing comments on the timing of participant compliance and noting that all commenters, including the State and the Nuclear Energy Institute (NEI), recommended that the timing of DOE's initial certification be specified as six months in advance of the application submission).

> identification of relevant documents and issues. Because the relevant information would be readily available through access to the LSS, the initial time-consuming discovery process, including the physical production and on-site review of documents by parties to the HLW licensing proceeding, will be substantially reduced.

54 Fed. Reg. 14,925, 14,926 (Apr. 14, 1989).[7]

Additionally, in 1987 the Commission established a federal advisory panel, now known as the LSN Advisory Review Panel (LSNARP). Its task is to assist in the implementation of the LSN and to help "develop the essential features of the procedural rules for effective Commission review of the [DOE] license application within the three-year time period required by section 114(d) of the [NWPA]." Id. at 14,926. LSNARP members include DOE, the State, the NRC, local and tribal governments, and members of the public.

As explained in more detail in Part III.B., the timing of DOE's document production is substantially within its control. As far as Subpart J is concerned, DOE can produce its documents whenever it is ready. When it does, however, DOE must simultaneously certify that it has made its documents available. See 10 C.F.R. § 2.1009(b). DOE's document production and certification are the trigger, obliging (a) the Commission to designate a pre-license application presiding officer (PAPO), see id. § 2.1010(a)(2); (b) the NRC to make its documents available within 30 days thereafter, see id. § 2.1003(a); and (c) the State and any other interested parties to make their documentary material available within 90 days, id. DOE's action also has an extremely important practical impact on the overall licensing schedule, in that it starts the six-month clock for the earliest date when DOE's Yucca Mountain license application can be docketed. See id. § 2.1012(a). Thus, DOE's document production and certification, if compliant, initiate the agency's Yucca Mountain administrative proceedings.

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[7] See also DOE Proposed Rule Comments at 2 (internal citations omitted) ("[I]t is important to recall that the fundamental purpose of the LSN, as well as the predecessor Licensing Support System (LSS), is to ensure that potential parties have timely access to documentary material sufficiently in advance of the NRC's formal licensing proceeding so as to permit the earlier submission of better focused contentions, resulting in a substantial saving of time during the proceeding").

B. The State's Motion

Turning to the matter before us, on June 30, 2004, DOE announced that it had placed 1.2 million Yucca Mountain related documents on a DOE website accessible to NRC and the public[8] and certified to the Secretary of the Commission that it had made its documentary material electronically available as specified in 10 C.F.R. §§ 2.1003(a)(1) and 2.1009(b).[9] Thereafter, this Atomic Safety and Licensing Board was designated as the PAPO.[10]

On July 12, 2004, the State filed a motion challenging DOE's document production and seeking to strike its June 30, 2004, certification, asserting that DOE had failed to comply with the requirements of 10 C.F.R. §§ 2.1003 and 2.1009 in three respects. First, the State claims that DOE failed to make all of its documentary material available as required by the regulations. See State Motion at 11. The State motion was accompanied by an affidavit by Robert R. Loux, Executive Director of the Nevada Agency for Nuclear Project,[11] in which Mr. Loux asserted, inter alia, that DOE's website failed to provide the 30 million pages of documents that had been projected by DOE four months earlier, excluded 3.4 million DOE e-mails, and failed to provide the text for "innumerable documents." Loux Aff. ¶¶ 2, 4, 6. Mr. Loux's affidavit also included a "very partial" list of 12 DOE documents identified by the State as "extremely relevant" that were missing from the DOE website. Id. ¶ 12; see also State Motion, Exh. 7.

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[8] See DOE, Yucca Mountain Documents Made Available for Licensing Proceeding (last modified June 30, 2004) [<http://www.doe.gov/engine/content.do?PUBLIC_ID=16120&BT_CODE=PR_PRESSRELEASES&TT_CODE=PRESSRELEASE>].

[9] See Letter from W. John Arthur, III, Deputy Director of DOE Office of Civilian Radioactive Waste Management (OCRWM), to Annette L. Vietti-Cook, Secretary of the Commission (June 30, 2004) [hereinafter Arthur Certification Letter] at Appendix D [hereinafter DOE Certification]. The DOE Certification states (at D-1), in pertinent part:

> Based on the procedures referenced in the Office of Civilian Radioactive Waste Management Licensing Support Network Certification Plan for Initial Certification (OCRWM, June 2004), I certify that (i) DOE has implemented procedures as required by 10 CFR 2.1009(a)(2) and (ii) to the best of my knowledge, the documentary material specified in 10 CFR 2.1003 has been identified from those documents submitted to CACI by April 15, 2004 and made electronically available.

Although 10 C.F.R. § 2.1009(b) states that the certification is to be made to the PAPO, no PAPO had yet been appointed, and thus DOE appropriately directed its letter to the Secretary.

[10] On July 7, 2004, the Commission designated, pursuant to 10 C.F.R. § 2.1010(a)(2), the Chief Administrative Judge of the Atomic Safety and Licensing Board Panel as the PAPO for this proceeding, and authorized him to delegate that authority. See 69 Fed. Reg. 42,073 (July 13, 2004). On July 8, 2004, the Chief Judge appointed this Board as the PAPO. See 69 Fed. Reg. 42,218 (July 14, 2004).

Second, the State asserts that DOE failed to make its documents available via the central LSN web portal and thus did not meet the regulatory requirements. See State Motion at 14-17. The State argues that the LSN portal is the only way to assure the integrity of DOE's documentary material and that simply placing the documents on DOE's server is insufficient. See Id. at 15.

Third, the State insists that DOE's certification was unlawful on its face because 10 C.F.R. § 2.1003(a)(1) makes it clear that all documentary material must be provided, whereas the certification states that it only covers "the documentary material . . . identified from those documents submitted to CACI [DOE's litigation support contractor] by April 15, 2004." Id. at 11-13 (quoting DOE Certification at 1).

On July 14, 2004, the Board issued a Memorandum and Order setting the State's motion for oral argument on July 27, 2004, and directing DOE to answer nine questions concerning the nature and extent of DOE's June 30, 2004, document production.[12] On July 19, 2004, the Board issued a further Memorandum and Order directing the LSN Administrator (LSNA) to answer 14 questions concerning the nature and structure of the LSN, his coordination with DOE, and certain technical aspects of the DOE website and its documentary content.[13] Pursuant to 10 C.F.R. § 2.1011(c)(4), the LSNA is tasked with coordinating the LSN, identifying any

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[11] Affidavit of Robert L. Loux (July 8, 2004) [hereinafter Loux Aff.].

[12] PAPO Board Memorandum and Order (Regarding State of Nevada's July 12, 2004 Motion) (July 14, 2004) (unpublished) [hereinafter July 14 Order].

[13] PAPO Board Memorandum and Order (Directing the [LSNA] to Respond to Questions) (July 19, 2004) (unpublished) [hereinafter July 19 Order].

problems regarding the "integrity of the documentary material certified in accordance with § 2.1009(b) by the participants to be in the LSN," and providing the PAPO with recommendations to resolve disputes regarding the integrity of the documents.

DOE filed its answer to the State motion on July 22, 2004, asserting that its certification and documentary production fully complied with the regulations and answering the nine questions posed by the Board.[14] NEI also filed an answer supporting the validity of DOE's actions.[15] On that same date, a group consisting of Public Citizen, Nevada Nuclear Waste Task Force, and Nuclear Information and Resource Service, filed an answer supporting the State motion.[16] Likewise, on July 22, the NRC staff filed an answer[17] opposing the State motion to the extent that it requests that the DOE certification be declared inadequate because of the alleged failure to make the documentary material available "via the LSN," NRC Answer at 6, but otherwise taking no position as to the adequacy of DOE's document production, see id. at 2-3. The staff also proffered some criteria for evaluating the sufficiency of a document production under the Commission's regulations. See id. at 10-14. Finally, on July 23, 2004, the LSNA filed his answers to the 14 questions posed by the Board.[18] On July 27, 2004, the Board heard oral argument on the State motion. We also took the testimony of Daniel J. Graser, the LSNA.

II. JURISDICTION AND AUTHORITY

The jurisdiction and authority of this Board is founded on the Commission's July 7, 2004, order establishing the PAPO:

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[14] Answer of the Department of Energy to the State of Nevada's Motion to Strike (July 22, 2004) [hereinafter DOE Answer].

[15] Answer to Nevada's Motion to Strike the Department of Energy's LSN Certification (July 22, 2004).

[16] Answer of Public Citizen, Nevada Nuclear Waste Task Force, and Nuclear Information and Resource Service in Support of the State of Nevada's Motion to Strike the Department of Energy's LSN Certification (July 22, 2004).

[17] NRC Response to Nevada Motion to Strike Department of Energy LSN Certification and for Related Relief (July 22, 2004) [hereinafter NRC Answer].

[18] Response of Licensing Support Network Administrator to July 19, 2004 Questions From Pre-License Application Presiding Officer Licensing Board (July 23, 2004) [hereinafter LSNA Answers].

> Pursuant to 10 CFR § 2.1010(e), the PAPO possesses all the general powers specified in § 2.319 and § 2.321(c) that the PAPO requires to carry out its responsibilities. As provided by 10 CFR § 2.1010(a)(1) and (b), the PAPO is granted this authority solely for the purpose of ruling on disputes over the electronic availability of documents, including disputes relating to claims of privilege and those relating to the implementation of recommendations of the Advisory Review Panel established under § 2.1011(d). Pursuant to § 2.1010(b), the PAPO shall rule on any claim of document withholding except as otherwise provided in this order or subsequent order of the Commission. . . . No issue lacking a direct relation to the LSN is to be entertained by the PAPO.

69 Fed. Reg. at 42,073-74 (first emphasis in original, second emphasis added).

The issues contested in this proceeding concern whether DOE has complied with the requirement of 10 C.F.R. § 2.1003 to make "all" of its documents "available." The proceeding also involves the closely related issue as to whether DOE's certification that it has complied with section 2.1003 is facially invalid.

DOE challenges the Board's jurisdiction and authority to strike its certificate of compliance with 10 C.F.R. § 2.1003. See DOE Answer at 11. DOE argues that the Board's authority is limited to the six areas listed in 10 C.F.R. § 2.1010(b)(1)-(6), and that any dispute concerning the docketing of DOE's license application is premature and solely within the authority of the Director of NRC's Office of Nuclear Material Safety and Safeguards (NMSS). See id. at 11-12. DOE also cites two rulemaking statements by the Commission for the proposition that the PAPO should not consider disputes over the adequacy or completeness of the production of documents because such disputes should be heard only after contentions are filed.[19]

DOE's arguments are without merit. The gravamen of the State's motion is that DOE has failed to make all of its documentary material available and that, until it does, the State is not obliged to make its documentary material available 90 days later as specified in 10 C.F.R.

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[19] See id. at 12-13 (citing 68 Fed. Reg. 66,373, 66,376 (Nov. 26, 2003); 69 Fed. Reg. 32,836, 32,843-44 (June 14, 2004)).

§ 2.1003. Clearly, this is within our jurisdiction -- "ruling on disputes over the electronic availability of documents." It is equally clear that we have the authority to regulate the conduct of the proceeding and the parties and to dispose of motions, as well as all the other general powers granted by 10 C.F.R. §§ 2.1010, 2.319, and 2.321(c). In this regard, "[a] presiding officer has the duty to conduct a fair and impartial hearing according to law, to take appropriate action to control the prehearing and hearing process, to avoid delay and to maintain order. The presiding officer has all the powers necessary to those ends." 10 C.F.R. § 2.319. This includes the authority to strike DOE's certification to the extent that it triggers other actions during this prehearing process, including the obligation on the part of other participants to make their documents electronically available. DOE's quotations from the Commission's statements are taken out of context and are inapposite because they clearly relate only to disputes over the classification of documents (Class 1 and Class 2) rather than to disputes as to their availability. See 69 Fed. Reg. at 32,843-44. Likewise, while we recognize that the Director of NMSS, not this Board, will make the ultimate determination as to the docketing of DOE's license application pursuant to 10 C.F.R. § 2.1012(a), availability of documents, not docketing, is the issue before us.

III. ANALYSIS

For the reasons set forth in more detail below, we conclude that because of the incompleteness of its document review and production, the many years in which DOE has had to gather and produce its documents, and the fact that the date of production was effectively within DOE's control, DOE's document production on June 30, 2004, did not satisfy its obligation to make, in good faith, all of its documentary material available pursuant to 10 C.F.R. §§ 2.1003 and 2.1009. It is clear from DOE's answer, as well as its representations during oral argument, that DOE has not completed its duty of producing all known and reasonably available documents. We also find that DOE's method of making its documentary material available (i.e., putting the documents on its own server) fails to provide the needed assurance of the integrity and electronic stability of the documents for the required six-month document discovery period and does not comply with 10 C.F.R. §§ 2.1003 and 2.1009. The LSN is "the . . . system that makes documentary material available," 10 C.F.R. § 2.1001, and until documents are indexed and secure in the LSN they are not "available" for purposes of the NRC licensing proceeding. Finally, the Board notes that DOE's certification appears to be facially invalid because its plain language and express limitations make clear that DOE is not certifying that it has made all of its documents available.

This case presents three broad issues relating to whether DOE's June 30, 2004, document production and certification complied with 10 C.F.R. §§ 2.1003 and 2.1009. The first concerns the completeness of the document production -- whether DOE made "all" of its documentary material available. The second issue concerns the meaning of the regulatory phrase "make available" and whether documentary material must be indexed and secure on the LSN before it is deemed available. The third issue focuses on the actual wording of DOE's certification and whether it facially fails to meet the regulatory requirements. Our analysis begins with Section A, which reviews the applicable regulatory structure and requirements. Section B addresses the standards we use in applying the regulations. Sections C, D, and E, respectively, deal with the three issues in this case -- completeness, availability, and facial validity.

A. Regulatory Structure

The first step in assessing the completeness and adequacy of DOE's document production is to understand the regulatory requirements and definitions.

With respect to the completeness issue, it is clear at the outset that the regulations specify that DOE must make "all documentary material" available. 10 C.F.R. § 2.1003(a)(1). The general rule is that the full text or image of each document, together with an electronic bibliographic header (header)[20] must be made available for every document. See id.

§ 2.1003(a)(1) and (2). If it is technically infeasible to make the full text or image electronically available, or if the participant claims that a document is privileged, only a header need be provided. See id. § 2.1003(a)(3) and (4).[21]

The term "documentary material" is broadly defined in 10 C.F.R. § 2.1001 and covers three categories of information. First, it includes "[a]ny information upon which a party . . . intends to rely and/or to cite in support of its position in the proceeding" (Class 1 or "reliance" documentary material). Id. § 2.1001. Second, it embraces "[a]ny information that is known to, and in the possession of, or developed by the party that is relevant to, but does not support, that information or that party's position" (Class 2 or "non-supporting" documentary material). Id.[22] The third class of documentary material encompasses "[a]ll reports and studies, prepared by or on behalf of the . . . party, including all related 'circulated drafts,' relevant to both the license application and the issues set forth in the Topical Guidelines in Regulatory Guide 3.69, regardless of whether they will be relied upon and/or cited by a party" (Class 3 or "relevant" documentary material). Id. The regulations make clear that documentary material excludes reference books, financial and procurement material, copyrighted material and other similar material. See id. § 2.1005.

Turning to the question of "availability" -- how and to whom documentary material is to be made available -- the regulations are not a model of clarity. The first sentence of section 2.1003 simply states that DOE and other participants shall "make available" their documentary material.

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[20] Pursuant to 10 C.F.R. § 2.1001, a "bibliographic header" means "the minimum series of descriptive fields that a potential party . . . must submit with a document or other material."

[21] Under section 2.1003(a)(4), a participant need provide only the header, but not the text, of "documentary material (i) [f]or which a claim of privilege is asserted; (ii) [w]hich constitutes confidential financial or commercial information; or (iii) [w]hich constitutes safeguards information." Section 2.1006 further defines the scope of the privileged documents and incorporates the exceptions specified in 10 C.F.R. § 2.390, including certain protections under the Privacy Act (see 5 U.S.C. § 552a). For purposes of this Memorandum and Order, the term "privilege" includes all of these privileges.

[22] Non-supporting documentary material includes both (a) documentary material that does not support a party's position and (b) documentary material that does not support the party's information. The former may be dependent on the contentions; the latter is not.

Subsection (e) of 2.1003, added on June 14, 2004, and dealing with the participants' duty to supplement certain materials, provides more guidance, stating that a participant shall "continue to supplement its documentary material made available to other participants via the LSN." 69 Fed. Reg. at 32,848 (emphasis added). Section 2.1009(b) merely states that a participant must certify that "the documentary material specified in § 2.1003 has been identified and made electronically available."

Several other Subpart J provisions appear to assume that the LSN is the method for making documentary material available. Section 2.1011 directs the LSNA, inter alia, to "[i]dentify any problems regarding the integrity of documentary material certified in accordance with § 2.1009(b) by the participants to be in the LSN." 10 C.F.R. § 2.1011(c)(4) (emphasis added). In addition, the LSNARP is tasked with providing advice on format standards for access to "the documentary material certified by each participant to be made available in the LSN to the other parties." Id. § 2.1011(e)(2)(i) (emphasis added). Section 2.1011 also establishes a significant list of computer, web, and database technical standards that participants must follow when making their documents available, including, for example, the requirement that "participants . . . make . . . their documents available on a web accessible server which is able to be canvassed by web indexing software (i.e., a 'robot', 'spider', 'crawler')." Id. § 2.1011(b)(2)(i).

The definition of "documentary material" also includes an indirect reference to the LSN because documentary material is defined, in part, as documents "relevant to . . . issues set forth in the Topical Guidelines in Regulatory Guide 3.69." Id. § 2.1001.[23] Reg. Guide 3.69 repeatedly refers to making documents available "via the LSN." [24]

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[23] Regulatory Guide 3.69, Topical Guidelines for the Licensing Support Network (rev. 1 June 2004). See also 69 Fed. Reg. 40,681 (July 6, 2004) [hereinafter Reg. Guide 3.69]. Reg. Guide 3.69 was originally published in 1996. See 61 Fed. Reg. 49,363 (Sept. 19, 1996). A proposed revision was published in 2002, see 67 Fed. Reg. 44,478 (July 2, 2002), as Draft Guide 3022 [hereinafter DG-3022].

Finally, the meaning of availability "via the LSN" depends in key part on the definition of the "LSN," which is: "the combined system that makes documentary material available electronically to parties, potential parties and interested governmental participants." 10 C.F.R. § 2.1001. Thus, the LSN is "the" system for making documentary material available. The phrase "combined system" is not defined.

As to the issue of the facial validity of DOE's certification, the regulations do not prescribe any particular wording for the certification. The regulations simply require each potential party to "[e]stablish procedures to implement the requirements in § 2.1003," and to have a "responsible official . . . certify to the [PAPO] [1] that the procedures . . . have been implemented, and [2] that to the best of his or her knowledge, the documentary material specified in § 2.1003 has been identified and made electronically available." Id. § 2.1009(a)(2), (b).

B. Applicable Standard for Document Production

Given the clear edict that DOE (and all other participants) make "all" documentary material available, Id. § 2.1003(a)(1), we initially must determine how to apply this regulatory mandate to DOE's conduct.[25] We recognize that DOE has expended substantial effort and produced over one million full text documents. The adequacy of DOE's effort, however, must be assessed against the magnitude and importance of the task and the more than 15 years that DOE has had to fulfill its regulatory obligation. We agree that perfection is not required[26] and that, as with any "multi-year production effort involving millions of documents, thousands of

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[24] At the outset, and in six other places, Reg. Guide 3.69 states that documentary material should be identified in or made available "via the LSN." Reg. Guide 3.69 at 3.69-1 to 3.69-7. The Commission's Statement of Considerations in revising Reg. Guide 3.69, likewise states that documentary materials should be made available "via the LSN" in at least six places. 69 Fed. Reg. at 40,681-87. Lest it be thought that this is a recent development, it should be noted that the original September 1996 version of Reg. Guide 3.69 likewise used the phrase "in the LSS" on multiple occasions, Reg. Guide 3.69 (Sept. 1996) at 3.69-1 to 3.69-5, as did DG-3022 at 1-8.

[25] This issue is relevant, but of significantly less concern, in considering how participants must make documents available.

[26] DOE and the State agree that perfection is not required. See DOE Answer at 2; Tr. at 7, 43.

persons, and complicated information systems," any production is bound to have some "human mistakes." DOE Answer at 2. Likewise, we understand that some technical anomalies are to be expected when initiating a large database and website system such as the LSN. See Tr. at 107.

All parties agree that the regulatory requirement to produce "all documentary material" is not to be read literally and should be read as embodying a good faith standard. See DOE Answer at 8; Tr. at 17-19, 142. The Commission first articulated this standard in 1989:

> The Commission expects all LSS participants to make a good faith effort to identify the documentary material within the scope of § 2.1003. However, a rule of reason must be applied to an LSS participant's obligation to identify all documentary material within the scope of the topical guidelines. For example, DOE will not be expected to make an exhaustive search of its archival material that conceivabl[y] might be within the topical guidelines but has not been reviewed or consulted in any way in connection with DOE's work on its license application.

54 Fed. Reg. at 14,934.

We agree that a good faith standard must be applied to each participant's document production. Thus, on the date it chose to certify its document production, DOE must have made, in good faith, every reasonable effort to make all of its documentary material available. In this context, good faith involves at least several factors.

The fact that DOE has had over 15 years to comply and effectively controlled the timing of its document production are key factors in assessing whether it has met its good faith duty to produce all documents.[27] DOE had ample time within which to gather its documents, determine whether they constituted "documentary material," and to review them for possible claims of privilege. DOE knew from the start that millions of documents were involved. While we applaud DOE's attempt to manage its work by establishing its own document production schedules and internal deadlines, if, on the day of DOE's self-imposed document production deadline, DOE was not quite finished, that deadline, not compliance with 10 C.F.R. § 2.1003, is what now must yield.

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[27] NWPA requires DOE to submit its license application to the Commission 90 days after the date on which the President's recommendation to use the Yucca Mountain site is effective. See NWPA § 114(b), 42 U.S.C. § 10134(b). Subpart J dictates that DOE must make its documents available six months before the application is docketed. See 10 C.F.R. § 2.1012(a). However, DOE has never suggested that its June 30, 2004, document production was done in response to these requirements. We surmise that this is because, in reality the Presidential recommendation under NWPA § 114(b) is triggered by DOE's recommendation of the Yucca Mountain site to the President under NWPA § 114(a), the timing of which was entirely within DOE's control. We note that the Presidential recommendation was effective on July 23, 2002, after Congress passed a joint resolution overriding the State's veto and approving the development of a repository at Yucca Mountain. See Pub. L. No. 107-200, 116 Stat. 735 (2002) (codified at 42 U.S.C. § 10135 note). Thus, under the combination of NWPA § 114(b) and 10

The purpose and importance of DOE's obligation to produce all documents are also factors in applying the good faith standard. The Yucca Mountain licensing proceeding is of critical importance. As the applicant, DOE bears the burden to support all points required for a license, and DOE's certification initiates the entire licensing process. A full and fair six-month document discovery period, where all of DOE's documents are to be available to the potential parties and the public, is a necessary precondition to the development of well-articulated contentions and to the Commission's ability to meet the statutory mandate to issue a final decision within three years. These important objectives cannot be met unless we require DOE to make every reasonable effort to make all of its documentary material available at the start.

Finally, the status and financial ability of DOE must be part of the good faith analysis. DOE is an arm of the U.S. Government. It has the resources of the Nuclear Waste Fund at its disposal in assembling its documentary material and complying with 10 C.F.R. § 2.1003. See 42 U.S.C. § 10222(d). As the applicant, DOE has the most critical role and responsibility in initiating this proceeding properly.

In this context, the good faith standard as applied to DOE's duty to produce all documents is a rigorous one, requiring DOE to make every reasonable effort to gather, to

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C.F.R. § 2.1012(b), DOE should have made its documents available on April 23, 2002. In contrast, DOE stated at oral argument that "until the statutory process culminated in Congress' determination, it was inappropriate to expend those types of monies on that [document production] process." Tr. at 116. In short, DOE disregarded the statutory deadline for submitting its application and the related regulatory deadline for making its documents available. For our purposes, it is sufficient to note that DOE effectively controlled the timing of these deadlines, and effectively controlled the timing of its two-year delay in meeting them.

assess for privilege, and to produce all documentary material at the outset, without regard to artificial or self-imposed deadlines.[28]

C. Completeness of Document Production

Having reviewed the relevant regulations and the standard to be applied, we now turn to the issue of whether DOE's document production was sufficiently complete. DOE states that it made 2,090,474 documents[29] electronically available on its own website on June 30, 2004.[30] See DOE Answer at 14. Of these, approximately one-half were made available in full text or image form with headers, and one-half were made available without text with headers only. See Tr. at 62. In short, the text of approximately one million of DOE's documents was withheld, even on its own server. Meanwhile, as of June 30, 2004, approximately 500,000 of DOE's documents had been indexed on the LSN website. See DOE Answer at 6.

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[28] We find it unnecessary to decide whether DOE's document production is subject to the "substantial and timely compliance" standard of 10 C.F.R. § 2.1012(b)(1). DOE does not argue that this "substantial" compliance standard applies to it. The State vigorously argues that DOE is subject to a higher standard and that the term "timely" is meaningless when applied to DOE. See Tr. at 27-28. The staff recognizes that the regulations do not impose such a criterion on DOE but argues that we should apply the substantial and timely compliance standard to DOE: "there does not appear to be any reason to judge DOE's compliance by a standard different from that applicable to other potential parties." NRC Answer at 11. We are not so sure, given that DOE will be the applicant and its certification triggers the entire pre-license application process. We note that 10 C.F.R. § 2.1012(b)(1), which operates to deny a person party status unless it shows "substantial and timely compliance with the requirements of § 2.1003," does not apply to DOE, because it will be the applicant and cannot be denied party status. We further agree with the State that at least the "timeliness" criterion cannot apply to DOE, which, having ignored the statutory deadline for submitting its application, effectively chose its own document production date. In any event, given our holding that DOE is subject to a good faith standard, we need not reach the substantial compliance issue.

[29] In contrast, DOE's public announcement stated that it had certified to the NRC "the public availability through the Internet of approximately 1.2 million documents totaling some 5.6 million pages regarding Yucca Mountain." See DOE, Yucca Mountain Documents Made Available for Licensing Proceeding (last modified June 30, 2004) [<http://www.doe.gov/engine/content.do?PUBLIC_ID=16120&BT_CODE=PR_PRESSRELEASES&TT_CODE=PRESSRELEASE>].

[30] Exhibit 17 to DOE's answer shows that DOE reviewed 2,962,684 documents and excluded 872,210 of them as not meeting the definition of "documentary material." See also Tr. at 61. Of the remaining 2,090,474, approximately one-half, i.e., one million, were provided in header only format. See id. at 62.

The pleadings, factual answers of DOE and the LSNA, and the oral argument, revealed four main categories of documents relating to the completeness of DOE's document production. These are (1) DOE's non-production of the text of at least "several hundred thousand" documents due to the fact that DOE had not completed its own privilege review of them; (2) the non-production of four million "archival" e-mails; (3) the non-production of documents that DOE gathered after April 15, 2004 ("gap" documents); and (4) the non-production of miscellaneous other groups of documents. The following analysis will review each of these categories in turn, and then address the collateral issue regarding whether DOE can cure any deficiencies in its initial document production by supplementing its production later.

1. Document Texts Withheld Pending DOE's Unfinished Privilege Review

After its June 30, 2004, certification, DOE still had not completed its privilege review of hundreds of thousands of documents. Thus, it chose to withhold the text of these documents. Further, DOE's apparent confusion over the privileged status of its document collection resulted in DOE taking its website off-line almost immediately. DOE's site was down from July 1 to July 6 in order for DOE "to safeguard the content of certain documents that contain privacy protected [i.e., privileged] information." DOE Answer, Exh. 1, Affidavit of Harry E. Leake (July 22, 2004) ¶ 14 [hereinafter Leake Aff.]. On July 2, 2004, W. John Arthur, III, the Deputy Director of the DOE OCRWM, wrote the LSNA that, due to DOE's error, it had "inadvertently made available" a number of privileged documents and thus had taken the DOE website off-line. DOE Answer, Exh. 18, Letter from W. John Arthur, III to Daniel Graser, LSNA (July 2, 2004) at 1. Mr. Arthur also requested that the LSNA take all of the DOE documents off the public LSN and that the LSNA "defer activating its index of DOE's documents until it has verified that its website will not make available the documents that may contain privacy protected information." Id. These were not problems with the computer systems, but simply resulted from the fact that DOE was still undecided as to which of its documents it wanted to withhold as privileged.

Even before the certification date, DOE uncertainties as to its privilege claims caused unexpected problems on the LSN. After long exhortation from the LSNA, see Tr. at 100, DOE finally began making its documentary material available for indexing on the LSN on May 5, 2004. See Leake Aff. ¶ 9. Prior to May, DOE and the LSNA had agreed to institute certain access controls so that LSN indexing could begin and DOE documents would not be made publicly available on the LSN until DOE authorized it.[31] Pursuant to this arrangement, as of June 30, 2004, DOE had made 648,452 documents privately available to the LSNA for indexing. See LSNA Answers at 16. But during this same time, DOE reversed itself and instructed that 150,684 of these items be deleted (both header and text) from the LSN. See id. This very large number of deletions was unexpected and caused substantial problems by diverting LSN resources that were intended for the indexing of new documents instead to the task of deletion. See Tr. at 111. The origin of these difficulties was not of a technical nature, but was a direct result of the incompleteness of DOE's privilege review process.[32] The difficulties continued after June 30, 2004, when DOE submitted three more waves of deletion requests to the LSNA, one covering 25,209 documents. See LSNA Answers at 16-17; Tr. at 97-98. DOE's very late deletions of over 175,000 documents indicates that DOE had still not finished its privilege review.[33]

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[31] See DOE Answer, Exh. 14, Letter from Joseph D. Ziegler, Director, DOE Office of License Application and Strategy (OLAS), to Daniel J. Graser, LSNA (May 4, 2004) at 1-2; Id., Exh. 15, Letter from Daniel J. Graser to Joseph D. Ziegler (May 5, 2004) at 1. At that point DOE was still estimating that it would make 12 million pages of documentary material available, see DOE Answer, Exh. 14 at 1, rather than the 5.6 million pages it ultimately produced on June 30, 2004.

[32] The LSNA stated that "[o]nce we began loading the [DOE] documents, we had no technical problems with the LSN side and in fact, we were able to come up to a capacity of loading as many as 40,000 documents in a 24-hour cycle." Tr. at 101-102. "[T]he technical problems we were having are not the result of the DOE document format. The problems that we were experiencing, especially subsequent to July 7, were problems associated with attempting to delete the documents that were already in the LSN system for which [DOE] submitted the call back list of 25,209. . . . [I]t was the unusual situation of having to expeditiously process such a large number of deletions. . . ." Id. at 110.

[33] During oral argument, some confusion also arose because DOE's headers included a field where documents were designated either "PUB" or "PRIV." Some of the documents that DOE provided in header format only (implying that they were claimed as privileged) had a "PUB"

The incompleteness of DOE's privilege review became further apparent in DOE's Answer and at the oral argument. DOE acknowledged that, four weeks after its certification, it still had "ongoing processes and procedures" to identify privileged documents, the text of which DOE had already withheld on grounds of privilege. See Tr. at 87.[34] DOE conceded that, in its June 30, 2004, document production, of the million or so documents where the text had been withheld, "several hundred thousand" had been withheld under a claim of privilege, even though DOE had not completed its own two-step privilege review process for these documents. Id.[35]

The fact that DOE had not finished its privilege review for several hundred thousand documents came to light as a result of the State's challenge to five of DOE's "header only" documents. See State Motion, Exh. 7. With regard to all five, DOE responded that its screening software had originally classified them as privileged, that as a part of its ongoing privilege review DOE "would have" reviewed the documents, but that in light of the State's motion, DOE "expedited" its second step (human) review of the documents and decided that the documents did not require withholding. DOE Answer, Exh. 20.[36] After its second step review, DOE dropped

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header. See Tr. at 24. DOE clarified that the PUB/PRIV designations derived from a DOE records management system classification ("PUB" designating a document freely available to users in DOE and "PRIV" designating documents with restricted access within DOE) having nothing to do with DOE's classification of the documents as legally privileged for purposes of the Yucca Mountain licensing proceeding. See id. at 52. However, it is hard to conceive, as DOE appears to claim, that a "PUB" document that is freely available within DOE can qualify as privileged.

[34] DOE stated that its ongoing process involves two steps. See Tr. at 85. First, documentary material is reviewed for privilege by a computer – DOE's "privacy and privilege screening software." DOE Answer, Exh. 20, DOE's Response to Documents Identified in Exhibit No. 7 to State's Motion to Strike at 1, 3-5. Second, DOE has a team of 20 to 30 reviewers looking at all documents that had a privilege "hit" from the software and determining whether, in fact, the documents qualify for a privilege. See Tr. at 87.

[35] DOE stated that its second step – human review of these documents for possible privilege – was proceeding at approximately 20,000 per day. See id. at 88.

[36] With regard to each of the five documents, DOE stated "[t]he document was in header-only format because it was flagged by [DOE's] privacy and privilege screening software. As part of [DOE's] ongoing processes and procedures, [DOE] would have reviewed this

its privilege claim on all five of the documents. See Tr. at 25.

At the oral argument, the State presented further evidence of disarray in DOE's privilege review process. The State indicated that a computer search of DOE's website, using the search term "party," produced the headers (but not text) of dozens of documents whose title contained the term "party" (e.g., "bachelor party," "party for Debbie," "December 13th party," "Thanks for the party," "housewarming party," "pool party") and that "every one of [them] is marked 'privileged.'" Argument Exh. 4; Tr. at 173-174.[37] It is hard to imagine that such documents qualify for any legal privilege.

More substantively, the State stated that it had done a search of DOE's website for the phrase "alloy-22 corrosion," which it views as "one of the most critical topics in this proceeding." Tr. at 21. The State reported that the search had produced 9,261 hits, and that the first 4,876 of these documents were on the DOE website in header-only form (i.e., claimed to be privileged). See Argument Exh. 3; Tr. at 21, 169. Our brief review of these 4,876 headers reveals that the documents are mostly technical reports, studies, minutes and data. It strains credulity to believe that any substantial number, much less all, of the 4,876 documents can fairly be withheld as legally privileged.

The incompleteness and ongoing status of DOE's review of its documents for potential

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document's bibliographic header-only status. In light of the State's motion, [DOE] expedited its review of this document and determined that the privacy and privilege concern flagged by the screening software did not require [DOE] to continue withholding the full text and image of this particular document." DOE Answer, Exh. 20 (in reference to documents 1, 6, 9, 11, and 12).

[37] At oral argument, the State submitted four exhibits. Argument Exhibit 1 is an August 9, 2002 memorandum from Lee Liberman Otis, General Counsel of DOE, regarding the "Search for and Retention of Relevant Hard Copy and Electronic Documents for the [LSN]." Argument Exhibit 2 is a May 27, 2004, Freedom of Information Act (FOIA) request by the law firm of Egan, Fitzpatrick, Malsch & Cynkar, PLLC to DOE concerning its standards for screening and excluding documents from the LSN. Argument Exhibit 3 is a set of several hundred pages of screen shots for the first 4,900 documents produced when the State queried the DOE website with the search phrase "alloy-22 corrosion." Argument Exhibit 4 is a set of 27 pages of headers produced when the State queried the DOE website with the search term "party." All of these documents have been entered as argument exhibits, and have been placed in the agency's electronic hearing docket.

claims of privilege and the fact that DOE purported to make all of its documents available, while still withholding the text of many of them because it had not decided whether they were privileged or not, makes it clear that DOE has not met its duty, in good faith, to produce all documents. By DOE's own admission, there are "several hundred thousand" documents that DOE has not produced in full text but for which DOE had not completed its own two-step privilege review process. Tr. at 87. But the 10 C.F.R. § 2.1003 duty to produce the full text of all non-privileged documents means that DOE must complete its privilege review, and make the full text of all non-privileged documents available, before it can certify that it has made all documents available. Providing the header only for hundreds of thousands of documents, while DOE's privilege review is still "ongoing," is insufficient. And, while we recognize that the pre-license application phase permits participants to challenge another participant's privilege claims, the six-month period is neither designed for, nor to be consumed by, internal DOE waffling about whether the text of documents that it has already withheld really should have been provided at the outset.

DOE is not aided by its characterization of its second step as an additional one that DOE has "taken upon [itself]." Tr. at 86. The two-step privilege review process was established by DOE, not us, long before its June 30, 2004, certification and is still ongoing for several hundred thousand documents. Indeed, if DOE chose from the outset to do only a one-step privilege analysis and had finished the one-step by June 30, then this precise problem might not have arisen, although undoubtedly such an approach would have spawned myriad other problems.[38] But the fact is that DOE chose to use a two-step privilege review process and plainly it was substantially incomplete as of June 30, 2004. That, as an entirely separate matter, DOE withdrew 150,000 documents from the LSN on privilege grounds before June 30, 2004, and another 25,000 thereafter, further illustrates that DOE's privilege review process was still unfinished. The incompleteness of DOE's privilege review is not a minor or inadvertent human mistake or technical glitch. It is a fundamental and system-wide problem caused by a conscious DOE decision to certify on June 30, 2004, before DOE's privilege review was finished.[39]

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[38] Given DOE's difficulties, articulated in the May 20, 2004, report of its Inspector General (IG), with its privilege review software, and the indications that the software vastly over-excludes and withholds non-privileged documents (e.g., the 4,876 alloy-22 corrosion documents), it is appropriate, and perhaps even required, that DOE conduct its second-step human review of the documents for claims of privilege. See State Motion, Exh. 3, DOE Office of Inspector General Audit Report on Management Controls over the Licensing Support Network for the Yucca Mountain Repository (May 2004) [hereinafter DOE IG Report].

To allow DOE's certification to stand in light of its substantially unfinished privilege review process would wreak havoc on the six-month document discovery period. Rather than allowing all participants the full six months to review the non-privileged documents, DOE's approach leaves the full text of hundreds of thousands of relevant documents unavailable unless and until DOE finishes its review. Motions to produce and massive privilege disputes over thousands of documents, such as the 4,876 alloy-22 corrosion documents, would needlessly proliferate. This tremendous diversion of effort would be largely avoided by insisting that DOE meet its regulatory obligation and finish its own two-step privilege review before certifying.[40]

Thus, while we express no opinion as to the merits of DOE's claim of privilege for any of these hundreds of thousands of documents, it is clear that a good faith and reasonably complete document production requires that DOE finish its own privilege review process before certifying, and that DOE's document production, therefore, has not met the requirements of 10 C.F.R. §§ 2.1003 and 2.1009(b).

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[39] Further evidence that DOE has simply failed to finish its task is found in the DOE IG's report, issued one month before DOE's certification, stating that DOE "still faces a number of obstacles in . . . ensuring that documents are available for public review by June 2004. Specifically, the majority of the documents have yet to be screened for privileged and Privacy Act information. In February 2004, the Department implemented a newly designed software package and began processing documents; however, it had not yet evaluated whether the system was effective and was properly identifying information that should not be disclosed." Id. at 2 (emphasis added).

[40] While the pre-license application phase will certainly have its share of discovery and privilege disputes, today's ruling will obviate a substantial number of them.

2. Archival E-mails

The second sub-issue in evaluating the completeness of DOE's document production is its non-production of approximately four million potentially relevant "archival" e-mails. DOE readily acknowledges that it has neither reviewed nor provided these documents, arguing that because they are archival, they are not covered. See DOE Answer at 15-16. DOE defines "archival" as any e-mail, no matter how recent, that is on a back-up tape. See Tr. at 68, 70. However, the fact is that DOE started with approximately ten million archival e-mails. See id. at 70. In preparing for its document production DOE reviewed 60 percent of the ten million archival e-mails (i.e., six million), see id. at 74, 127-28, 135, and on June 30, 2004, it produced 689,600 of them. See DOE Answer, Exh. 17. DOE stated that its review of the six million archival e-mails showed that approximately 10 percent were "potentially relevant" and needed to be produced. Tr. at 75. DOE characterizes 10 percent "as a very low percentage." Id. at 76. At some point, DOE halted its review of archival e-mails and did not review or produce any of the remaining four million.

Upon questioning, it appeared that the only distinction between the six million archival e-mails that DOE reviewed and the four million archival e-mails that it did not, is that the former were authored by the 2,300 current DOE (and contractor) personnel and the latter were authored by inactive or external users. See id. at 134-35; DOE Answer at 15.[41] In short, all ten million e-mails were "archival." The four million unreviewed e-mails include documents created as recently as 2002 and perhaps 2003. See Tr. at 73. DOE's rationale for not reviewing the final four million archival e-mails was that it was not required to do an "exhaustive search," id. at 67, and that, because only 10 percent of the six million archival e-mails were potentially relevant, it was not worth bothering with reviewing the remaining four million, see id. at 74-75; DOE

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[41] Thus, DOE did not review or produce relevant e-mails by even highly significant individuals if they are not current employees or contract personnel. For example, the e-mails of Lake Barrett, DOE's former Program Manager, appear to be part of the four million unreviewed and unproduced documents. See Tr. at 20.

Answer at 16.

We do not agree. By DOE's own estimate, approximately 400,000 (10 percent of the four million) documents would have to be produced. We cannot conclude that the conscious exclusion of 400,000 potentially relevant e-mails, including recent ones from key project personnel, meets the good faith standard. Such e-mails are often the source of unvarnished information that can be invaluable to the parties and the decision-makers.

DOE additionally defends its non-review or production of the four million e-mails by citing the Commission's earlier quoted 1989 statement that a party need not make an "exhaustive search of its archival material" in order to meet the good faith test. See Tr. at 67 (citing 54 Fed. Reg. at 14,934.) On this basis, DOE argues that it was justified in ignoring these four million documents. Again, we are not persuaded. First, the Commission's 1989 use of the term "archival" cannot reasonably be construed to include documents created after 1989. Common sense would indicate that it was referring to historical documents, not future ones. As of 1989, DOE had an electronic records management system in place that could, and apparently did, capture such future documents. Second, even if "archival" could include post-1989 documents, it certainly should not embrace documents created as recently as 2002 or 2003. We believe that the Commission's 1989 use of the word "archival" refers to past documents that might be difficult to find or to review, and the classification of such documents is not determined by whether a network administrator made a back-up tape last night. Third, acceptance of DOE's proposed definition of archival -- any electronic document that is on a computer back-up tape -- would produce the absurd result that DOE's future back-up tapes (i.e., a back-up tape to be made next week) qualify as "archival" and need not be reviewed.

Fourth, and most telling, DOE itself did not use the "archival" versus "non-archival" distinction in reviewing its e-mails. DOE classified all ten million of its e-mails as "archival." Of the six million that it reviewed, DOE produced 689,600, a relatively high ratio and a very large number of potentially important documents. A similar ratio would reasonably be expected from the other four million. Further, these e-mails are not hidden or difficult to find. They are known, available, apparently already segregated, and electronically searchable. In these circumstances, we reject the notion that it would be unreasonable or "exhaustive" for DOE to finish reviewing the remaining archival e-mails.[42]

DOE next argues that because (a) it is not planning to cite or rely on the four million e-mails; and (b) they are not reports or studies, they do not qualify as Class 1 or Class 3 documentary material and therefore it is less likely that they would need to be produced. See Tr.

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[42] The May 20, 2004, DOE IG Report again confirms that DOE has not finished the task of gathering, reviewing, and producing all documents. The report states: "the Department still faces a number of obstacles in . . . ensuring that documents are available for public review by June 2004." DOE IG Report at 2. It then goes on to specifically discuss DOE's problems with producing e-mails:

> Additionally, about 6.4 million electronic mail documents have not been processed, of which 3.1 million belong to personnel currently associated with the Yucca Mountain Project. The Department initially planned to use software to eliminate irrelevant items. However, after it developed and tested the software, it determined that the software was not functioning as intended. Because of these problems, officials determined that personnel still associated with the Yucca Mountain Project must manually review their electronic mail documents for relevancy and initiated this process in late February 2004. These manual reviews, daunting due to the sheer volume of information that must be processed, have the potential to delay the posting process. Department officials told us that they were still trying to improve the effectiveness of the software in hopes of using it to process the remaining 3.3 million electronic mail documents.

Id. at 2-3 (emphasis added). When asked about this report at the oral argument, counsel for DOE stated that the 6.4 million e-mails referred to in the IG Report were the same six million e-mails that DOE had referred to in its answer, that they all belonged to current project personnel, and that DOE had reviewed all six million of them. See Tr. at 134-135. This seems patently incorrect, as shown by the underlined portion of the DOE IG Report. The IG was referring to 6.4 million e-mails, only 3.1 million of which belonged to current personnel. This leaves 3.3 million e-mails as belonging to former personnel – presumably part of the same four million that DOE now contends it does not need to review. The final sentence of the above quote makes clear that, as late as May 20, 2004, DOE believed it needed to review these 3.3 million e-mails and was trying to do so. This is further indicia that, at the end, DOE decided to abandon its own document production plan in order to meet its self-imposed deadline of June 30, 2004, rather than complying with its duty to make all documents available.

at 74. We see no merit in this argument because the same classification system presumably was applied to the six million e-mails, 689,600 of which DOE has already classified and produced as meeting the definition of "documentary material." Perhaps the 689,600 were all Class 2 "non-supporting" documentary material -- "information . . . that is relevant to, but does not support, that information [i.e., Class 1 information] or that party's positions." 10 C.F.R. § 2.1001. But Class 2 documents might very well be of the most importance to persons who may want to question or to challenge the licensing of Yucca Mountain. DOE has given us no reason to believe that the classification distribution of the six million e-mails, where 10 percent of them qualified as documentary material, is any different than the classification distribution for the four million e-mails. DOE's argument on this point is without merit.[43]

We conclude that, given the relatively large number of the four million archival e-mails that DOE itself estimates is likely to qualify as documentary material that must be produced, the potential value of such non-supporting documents, the fact that they are already segregated on back-up tapes in electronic form, and the fact that DOE has already searched the other six million archival e-mails, a good faith effort to produce all documentary material requires that DOE review these remaining e-mails and produce those that qualify as documentary material.

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[43] The following recent statement by the Commission concerning Class 1 and Class 2 documentary material does not change the result:

> [T]he Commission is clarifying that, because the full scope of coverage of the reliance concept will only become apparent after proffered contentions are admitted by the Presiding Officer in the proceeding, an LSN participant would not be expected to identify specifically documents that fall within either Class 1 or Class 2 documentary material in the pre-license application phase.
>
> In this regard, the Commission still expects all participants to make a good faith effort to have made available all of the documentary material that may eventually be designated as Class 1 and Class 2 documentary material by the date specified for initial compliance in section 2.1003(a) of the Commission's regulations.

69 Fed. Reg. at 32,843.

First, because DOE is the license applicant and bears the ultimate burden on all points, it should already have identified and produced virtually all of the documents that support and "non-support" its application, even before any contentions are formulated. Second, as stated above, DOE has given us no reason to believe that the classification distribution of the six million e-mails, where DOE has already produced 689,600 of them as being "documentary material," is any different for the four million e-mails. Third, because the definition of Class 2 documentary material in section 2.1001 includes "information that . . . does not support that information" (i.e., Class 1 information), this portion of the Class 2 materials does not need to await the formulation of contentions. Finally, the preceding quote makes clear that even for Class 1 and Class 2 documentary material, the Commission still expects all participants to make a "good faith effort" to make it available at the outset.

3. Gap Documents

The third area of the State's challenge to the completeness of DOE's document production concerns documents collected by DOE's contractor, CACI, Inc. (CACI), after April 15, 2004, and before its certification on June 30, 2004. DOE's certification plan discloses that it does not cover documents received by CACI during this two and one-half month "gap."[44] DOE explained that its document identification and gathering effort was massive, starting in the 1980's and costing $45 million dollars, see DOE Answer at 1, but that "where documents are still being generated and identified on a regular basis, no initial certification can be 100 percent complete as of the moment of production, simply because of the lead time needed to collect documents and process them for production." DOE Answer at 7 (emphasis added). DOE acknowledged that it did not produce approximately 81,000 documents that it claimed fell into this gap and argued that the gap is a "necessary consequence of a production that is made in the midst of a large, massive-scale project still underway." Tr. at 128; see also DOE Answer at 10. DOE also indicated that the April 15, 2004, cut-off date was not rigid and that DOE had in fact processed and provided some documents that had been gathered in May and June. See DOE Answer at 10.

DOE's answers to the Board's written questions made clear, however, that many of the

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[44] See DOE Answer, Exh. 4, [DOE OCRWM] [LSN] Certification Plan for Initial Certification (rev. 1, June 29, 2004) at 3-4 [hereinafter DOE Certification Plan].

81,000 gap documents were actually pre-April 15, 2004, documents that DOE was still gathering, rather than documents that were "still being generated" after the cut-off date. Id. at 16. It appears that as many as 55,000 of the 81,000 documents might have been created before April 15, 2004. See id. In short, these documents did not fit DOE's own "still being generated" description of gap documents.

In assessing the gap document situation, we accept the proposition that, when a document production occurs in the midst of a large and ongoing project, those documents that are created after a reasonable cut-off date might not be included in the initial document production. That is not what happened here. Instead, DOE acknowledges that many of the 55,000 documents that DOE did not produce on June 30, 2004, were created before the cut-off date of April 15, 2004. These were simply "late-gathered" documents. While the non-production of the documents created after a (reasonably short) cut-off date is perhaps inevitable, the non-production of a significant number of documents created before the cut-off date is not inevitable and represents an entirely different situation.

The fact that DOE effectively chose its own time for producing its documents weighs heavily against accepting DOE's excuses with regard to late-gathered documents. DOE knew that there must be a lead time between the date when it called for documents and the date when all of the documents could be gathered, reviewed, and produced. DOE should have incorporated this lead time into its schedule for document production, and should have produced its documents only after it had gathered all of its extant documents. In managing the lead time, it was entirely within DOE's control to impose strict discipline in the gathering and production of documents by its various operations and contractors so as to assure that, in good faith, all extant documents were gathered and preduced. This it did not do. Instead; DOE forged ahead on June 30, 2004, failing to produce tens of thousands of late-gathered documents. Even with regard to late-gathered documents, we accept that perfection is not required and that human error might excuse the initial non-production of a few such documents. We cannot accept, however, the systematic non-production of tens of thousands of documents simply because DOE and its agents did not get their act together in time to meet DOE's own self-imposed deadline.

We reject any implication that tens of thousands of documents, even in the context of a "massive" document production, can be disregarded as de minimis. We acknowledge that this is a major undertaking and that, by its own count, DOE has already produced the text of approximately one million documents. But the systematic non-production of 55,000 documents, for example, is a substantial and serious deficiency, not to be excused under the rubric of an argument that because it represents only a small percentage of the total, it is therefore de minimis. See DOE Answer at 11 (asserting that production of all 81,000 documents would constitute only a 3.7 percent addition to DOE's document collection). The reality is that even in a large document production, tens of thousands of relevant documents are meaningful and could be significant, regardless of what percentage they represent.

Given the fact that DOE has very substantial resources, and that the timing of its document production and the lead time such a document-gathering exercise would inevitably involve was substantially within DOE's control, we find that DOE reasonably should have imposed greater discipline on its organization to gather all relevant and extant documents before its document production and that the non-production of tens of thousands of late-gathered documents did not meet DOE's obligation, in good faith, to produce all documents at the outset.

4. Other Categories of Miscellaneous Documents

DOE's answers to the Board's questions reveal several other groups of documentary material that DOE did not make available on June 30, 2004. The various groups of non-produced documents include, first, documents from DOE's offices and contractors that failed to certify to DOE that they had provided all of their potentially relevant documents. See DOE Answer at 15. Five out of 94 entities did not respond and the number of documents they might have is not known. See id. at 15-16, 17. Second, DOE did not provide an estimated 12,000 documents created after April 15, 2004, that have not yet been collected. See id. at 15-16. Third, DOE did not produce approximately 18,000 archival e-mails (possibly with documents attached) with "encryption problems." Id. at 17. Fourth, with regard to documents in the OCRWM and Bechtel SAIC Company, LLC employee concerns program (ECP), over which DOE claimed a privilege, DOE only produced a header for each ECP file, rather than for each document. See id. at 18.[45]

We find it hard to understand why, with all the time and technical expertise at its command, DOE should be unable to produce 18,000 e-mails due to "encryption problems." Likewise, consciously declining to provide a header for each ECP document and instead providing only a header for each file, is not acceptable. ECP documents might very well include some of the most "non-supporting" documents. Each ECP file might include hundreds of documents. We reject DOE's argument that providing a header for each ECP document might reveal privileged information; the same can be said for many other categories of privileged documents. In short, DOE must provide a header for each of them. Finally, in concert with our reasoning in the preceding section, we are less troubled by DOE's failure to produce 12,000 documents created after April 15, 2004. While two and one-half months is a relatively long gap, at least these documents genuinely belong in the "still being generated" category.

Given our ruling today, granting the State's motion, we find it unnecessary to go into greater detail with regard to these various categories of absent documents. Suffice it to note that these categories of documents may not be dismissed as merely de minimis and DOE now must work diligently to produce them if it is to meet its obligation, in good faith, to produce all documents.

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[45] In addition, DOE made clear that it did not produce the 872,210 documents which it concluded did not meet the definition of "documentary material." See DOE Answer, Exh. 17.

5. Supplementation

DOE's failure to make all of its documentary material available on June 30, 2004, is not excused by its indicated intent to supplement its initial production at a later time. To accept such a proposition would destroy the six-month document discovery period that is critical to the entire licensing proceeding.

The regulations call upon DOE to supplement its initial document production in only two situations, neither of which is applicable here.[46] First, 10 C.F.R. § 2.1003(e) states that each party "shall continue to supplement its documentary material . . . with any additional material created after the time of its initial certification." 69 Fed. Reg. at 32,848 (emphasis added). Documents created before a party's initial certification -- which represent the vast majority of documents that DOE has not reviewed or produced here -- are not covered by this duty to supplement. Clearly, section 2.1003(e) is not the solution. The second mandatory supplementation is detailed in 10 C.F.R. § 2.1009(b), which requires DOE to "update [its] certification at the time DOE submits the license application." For documents created before DOE's initial certification, supplementation at the time of license application, coming at the end of the six-month document discovery period, is much too late.

DOE points out that, under 10 C.F.R. § 2.1010(b), the Board has the authority to order DOE to produce missing documents. See Tr. at 129-30. That may be so. The short answer, however, is that any documents produced in response to a Board order would not have been available for the entire six-month discovery period -- which availability, as we have seen, is a central feature of the regulatory scheme. Apart from this dispositive consideration, resort to such authority would embroil this Board in many needless disputes and motions over thousands of documents that should have been made available, and properly classified by DOE as privileged or not, at the outset.

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[46] In addition to mandatory supplementation, DOE volunteered to supplement certain documents. DOE stated that, once processed, the 55,000 documents "will be made available in a supplemental production," and that it will "promptly make" an additional 26,000 e-mails available. DOE Answer at 16; see also Tr. at 81. DOE also stated that its privilege review process was ongoing, implying that it would make the text of more documents available after the privilege review was completed. We are not inclined to rely on such voluntary promises, when DOE has already failed to comply with its legal obligations.

Finally, we recognize that there is one other mechanism whereby other participants may be able to obtain documents from DOE. Section 2.1004 provides that a participant may request that another participant produce a document and that the document must be produced within five days. Using this approach to correct DOE's initial failure to make documents available suffers, however, the same crucial defects as discussed in the preceding paragraph.[47]

6. Conclusion as to Completeness

Given that DOE has had more than 15 years to assemble and produce its documents and effectively controlled the date for its production and that DOE's assembling and privilege review of its documents is still far from complete, and in light of the substantial disruption, delay, and confusion that such incompleteness will cause to the pre-license application six-month document discovery process, we must conclude that DOE's June 30, 2004, document production did not meet the requirement that it, in good faith, make all of its documentary material available as of the date of its initial certification, as required by 10 C.F.R. § 2.1003.

D. Availability

We now turn to the second basis for the State's motion to strike, the assertion that documents need to be indexed on the Commission's central LSN website before they are "available" within the meaning of the regulations and that DOE's placement of its documents on its own web server does not suffice. *See* State Motion at 14-15. In the State's view, "[c]ompliance with Subpart J requires that the documents be available and indexed on *NRC's* website (at least by an active hyperlink to DOE's LSN server) and that the LSN Administrator (not DOE) be in a position to assure access and data integrity." *Id.* at 15 (emphasis in original); *see also* Tr. at 34. DOE's failure to comply with Subpart J, according to the State, renders its purported certification invalid. *See* State Motion at 17.

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[47] In addition, the State has already requested documents from DOE pursuant to section 2.1004 and DOE has not produced them. On July 16, 2004, the State requested that DOE produce 19 header-only documents. Several days later, DOE responded that the request "has been turned over to our document handlers," and that "[n]inety-nine percent of the time our turnaround is ten working days." Tr. at 22-23. Surely 19 documents should not overwhelm DOE or require it disregard the five-day response time mandated in the regulation. The 19 documents had not been produced by DOE by July 27, 2004. Counsel for the State stated that if this is how DOE responds, "we're going to be [before the Board] thousands of times asking for documents." Id.

DOE responds that it complied with the regulations by placing electronic versions of its documents on the DOE web server where they could be indexed by the LSN. *See* DOE Answer at 4. DOE further asserts that it "went above and beyond those requirements" by simultaneously making those files publicly available on the Internet with an index. *Id.* at 4. DOE maintains that there is no language in the regulations that indicates DOE's documentary material can be considered "available" only after it has been indexed on the LSN. *See id.* at 4-5; Tr. at 122-23.

For its part, the staff agrees with DOE that, because section 2.1003(a) contains no express requirement that documentary material must be indexed and made available via the LSN, the phrase "make available" leaves DOE free to make its documents available via whatever method it chooses, so long as they may be indexed by the agency's central LSN site. *See* NRC Answer at 6; Tr. at 145-47.

The "language and structure" of the regulations is our starting point in construing their meaning.[46] Unfortunately, however, as discussed above in Part III.A., 10 C.F.R. §§ 2.1003(a) and 2.1009(b) do not specify how documentary material is to be made available. Section 2.1003(a) merely states that a participant must "make available" its documentary material. Section 2.1009(b) only adds that the documents must be made "electronically available." What is entirely unclear in the regulations – and what is vigorously disputed by the participants – is

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[46] *See* *Louisiana Energy Services, L.P.* (Claiborne Enrichment Center), CLI-97-15, 46 NRC 294, 299 (1997) (quoting *Long Island Lighting Co.* (Shoreham Nuclear Power Station, Unit 1), ALAB-900, 28 NRC 275, 288 (1988)).

how the documentary material is to be "made available" or "made electronically available."

Because sections 2.1003(a) and 2.1009(b) do not answer the question as to how documents are to be made available, we must, as counseled by the Commission, "examine the agency's entire regulatory scheme."[49] First, we note that a recent addition to section 2.1003 states that a participant "shall continue to supplement its documentary material made available to other participants *via the LSN*." 69 Fed. Reg. at 32,848 (emphasis added). This provision, appearing in the same section and dealing with the same subject matter, indicates that the LSN is the method for making documents available. The importance of the LSN is corroborated by the regulation establishing it, which requires that the LSNA "[i]dentify any problems regarding the integrity of documentary material *certified in accordance with § 2.1009 by the participants to be in the LSN*." 10 C.F.R. § 2.1011(c)(4) (emphasis added). We note also that Reg. Guide 3.69, which has regulatory significance because it is specifically incorporated into the definition of "documentary material," *id.* § 2.1001, repeatedly specifies that documents are to be made available "via the LSN." Reg. Guide 3.69 at 3.69-1 to 3.69-7. The introductory statement accompanying the most recent revision to Reg. Guide 3.69 also uses the phrase many times. *See* 69 Fed. Reg. at 40,681-87. Earlier drafts of Reg. Guide 3.69 were to the same effect, repeatedly stating that documents were to be "in the LSN." DG-3022 at 1-8.

Perhaps the most telling element of the Subpart J regulatory scheme is the definition of the LSN – it is "*the* combined *system that makes documentary material available* electronically to [other participants]." 10 C.F.R. § 2.1001 (emphasis added). This tells us that the LSN is not optional. It is *the* system for making documents available.

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[49] *See* *Northeast Nuclear Energy Co.* (Millstone Nuclear Power Station, Unit 3), CLI-01-10, 53 NRC 353, 366 (2001); *see also* 2A Norman J. Singer, *Sutherland Statutory Construction* § 46.05 (6th ed. 2000) [hereinafter *Sutherland*] ("A statute is passed as a whole and not in parts or sections and is animated by one general purpose and intent. Consequently, each part or section should be construed in connection with every other part or section so as to produce a harmonious whole.").

Read as a whole, it is cleår that Subpart J requires participants to make their documentary material electronically available in or via the LSN. But this does not end the inquiry, because we next need to determine what is required in order for a document to be "in the LSN" or available "via the LSN." More specifically, is a document "in the LSN" if it is only on a participant's own web server and capable of being indexed, but is not yet actually indexed by the LSN?

Section 2:1001 specifies that the "LSN" is "the combined system" for making documentary material available. Id. (emphasis added). The "combined system" includes both the Commission's central LSN server and each of the participant's individual web servers. See 66 Fed. Reg. at 29,455. But the parties dispute what it means for a document to be "in" the combined system. DOE and the staff essentially contend that, so long as documents are electronically placed on a component of the system, i.e., a participant's web server, the documents are "in the LSN" and meet the regulatory requirements. See Tr. at 119, 158-59. The State insists that the LSN is the whole system, not each of its discrete parts, and that, unless and until a document is indexed by the central LSN portal, its integrity and validation has not yet been established by the LSNA, and its availability remains subject to the vagaries of DOE's web server and thus it is not "in" or "available" in the LSN. See id. at 41-42, 167-168.

Because the plain language of the regulations is ambiguous as to what constitutes "availability" and what it means to be "in the LSN," we look to the regulatory history to resolve this ambiguity and to ascertain the Commission's intent.[50] At the outset, the Commission observed that "[t]he LSS is intended to provide for the entry of, and access to, potentially relevant licensing information as early as practicable before DOE submits the license application." 54 Fed. Reg. at 14,926. The chief purpose of the original LSS was to (1) eliminate the need for the physical production of documents – the most burdensome and time-consuming aspect of document discovery; (2) eliminate the equally burdensome and numerous FOIA requests anticipated to be received by DOE and the NRC; (3) enable the comprehensive and early technical review of the millions of pages of relevant licensing material produced by DOE and the NRC through the LSS's full text search capability; and (4) enable the comprehensive and early review of the licensing material by the potential parties so as to permit the earlier submission of better focused contentions. See id.[51]

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[50] See Shoreham, ALAB-900, 28 NRC at 288; see also Nuclear Energy Institute, Inc. v. EPA, 373 F.3d 1251, 1269 (D.C. Cir. 2004) (referring to statute's legislative history because the provision at issue did not "clearly and unambiguously answer[ ] the precise question" before the court). We note in this regard that while guidance found in regulatory guides and Statements of Considerations that conflict with or are inconsistent with a regulation cannot of course trump the plain meaning of the regulation, "guidance consistent with the regulations and at least implicitly endorsed by the Commission is entitled to correspondingly special weight." See Shoreham, ALAB-900, 28 NRC at 290-91.

Even after the centralized LSS database approach was replaced with the LSN, an Internet-based system, these purposes remained central. See 63 Fed. Reg. 71,729, 71,729 (Dec. 30, 1998). In August 2000, the Commission introduced the concept of a central "LSN site" based on internet portal software technology to "ensure that the totality of the individual websites operate in an 'efficient and effective' manner," and sought public comment on proposed minimum design standards for individual participant websites. 65 Fed. Reg. 50,937, 50,938, 50,940 (Aug. 22, 2000). In response to comments received from DOE in connection with this proposed rulemaking, the Commission agreed to change the term "'LSN site,' which refers to the LSN Administrator's portal site, to 'central LSN site,'" so as to distinguish it from the "'LSN' [which] refers to the totality of the 'central LSN site' and the various participant websites." 66 Fed. Reg. at 29,455 (emphasis added).

> The Commission described the value of the central LSN site and LSN as follows:
> The [central] LSN web page standardizes search and retrieval across all collections by providing a common user search interface, rather than requiring users to learn the search and retrieval commands from each different site.
>
> Each participant website acts as a file server to deliver the text documents

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[51] The LSS was also intended to provide for the electronic filing of documents during the hearing. See 54 Fed. Reg. at 14,926. This function was later shifted from the LSS/LSN to the Electronic Information Exchange system. See 69 Fed. Reg. at 32,836.

> responsive to a query found through a search at the LSN website. The LSN identifies the contents of each server and stores this information in its own database, which is then used to respond to searches. Users are presented lists of candidate documents that are responsive to their search. When the user wants to view a document, the LSN directs the participant server to deliver the file back to the user.
>
> In addition to the search and retrieval, the LSN keeps track of how data was stored in the participant servers. . . . It also gathers information about the performance of the participants' servers including availability, number of text or image files delivered, and their response times.
>
> Finally, the central LSN site will be used to post announcements about the overall LSN program and items of interest (hours of availability, scheduled outages, etc.) for the participant sites.
>
> The Commission believes that the recommended design represents the least cost to both the NRC and the individual parties to the HLW licensing proceeding, while at the same time providing high value to the users. Because it is based on a proven technical solution that has been successfully implemented, the recommended design will provide a document discovery system that will facilitate the NRC's ability to comply with the schedule for decision on the repository construction authorization; provide an electronic environment that facilitates a thorough technical review of relevant documentary material; ensure equitable access to the information for the parties to the HLW licensing proceeding; ensure that document integrity has been maintained for the duration of the licensing proceeding; most consistently provide the information tools needed to organize and access large participant collections; feature adequately scaled and adaptable hardware and software; and include comprehensive security, backup, and recovery capabilities.

66 Fed. Reg. at 29,461 (emphasis added).

Based on the repeated references to documents being available "in" or "via" the LSN, the definition of the LSN as "the system" for making documentary material available and the regulatory history and Commission's purpose in establishing the LSN, we conclude that being "in the LSN" means that a documentary material must be indexed on the central LSN site so that its integrity and stability is assured and it can be accessed via the single, consistent central LSN site search engine. This interpretation best effectuates the entire purpose of making documents "available" and assuring that there be an "adequate amount of time for participants to review the documentary material." Id. at 29,459. Indeed, DOE "fully supports" this objective – "ensuring that interested members of the public have a full six months in advance of submission of the License Application to review the Department's documentary material." DOE Proposed Rule

Comments Cover Letter at 1, 2. As recognized by DOE, this objective is "at the heart" of the Commission's effort to meet the three-year statutory deadline. DOE Proposed Rule Comments at 1.

It is apparent to us that DOE's position -- that documentary material is "available" once a participant loads the material onto its LSN participant server and makes the material available for indexing by the LSNA -- would completely frustrate the Commission's objective. DOE's interpretation seriously undermines the value and function of the central LSN site. It flies in the face of section 2.1001's definition of LSN as "the . . . system" that makes documentary material available. Most importantly, DOE's approach destroys the six-month pre-license application discovery period, reducing it by the amount of time needed to index the DOE document collection.[52]

The difference between accessing documents via the LSN central site versus accessing them via each individual participant's LSN server is substantial. As explained by the LSNA: "The LSN alone provides a mechanism to verify that documents, once made available, are not subsequently removed or revised." LSNA Answers at 14. And, because the operation of the LSN is under the independent control of the LSNA, rather than under the control of an interested participant, "[d]ata integrity, user access availability, and system performance response times cannot be manipulated by a party to the proceeding in such a way as to thwart effective and efficient access to the data collection under the party's operational control." Id. The independence of the LSNA also protects the integrity of a search and retrieval site that would otherwise be under the control of a party to the proceeding. See id. In addition, "[r]eliance on a single LSN search and retrieval interface requires that users only become familiar with a single search interface." Id.[53]

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[52] As discussed above, as of DOE's June 30, 2004, certification, approximately 500,000 (or only half) of DOE's 1.2 million full-text documents had been indexed by the LSN central site. See DOE Answer at 6. The LSNA stated that his target was to index 30,000 documents a day and 150,000 documents per week. See Tr. at 108-109. On July 23, 2004, the LSNA estimated that it would take a minimum of six or more weeks (i.e., at least until September 3, 2004, to index the remainder of the DOE document collection. See LSNA Answers at 12.

If a document collection is available only on an individual participant's server, there can be no assurance that (1) a participant has not removed or revised any of its documents; and (2) user accessibility, system performance response times, and search and retrieval results have not been manipulated by the participant controlling the individual server. As we have seen, during the first four weeks of operation of the DOE server, DOE has taken it off-line on three occasions, see DOE Answer at 14-15, and has removed many privileged documents from it, see LSNA Answers at 16-17. This uncertainty seriously undermines the purpose and value of the pre-license application document discovery because, from one day to the next, a person searching the DOE site might get different "hits" or results. The six-month document discovery period is thus diminished by the erosion of the participants' ability to perform their technical reviews and to formulate their contentions using a system whose integrity is independently assured. Such an outcome is completely at odds with the key purpose of the LSN and the Commission's stated goals to ensure not only "equitable access to the information for the parties to the HLW licensing proceeding;" but also "that document integrity has been maintained for the duration of the licensing proceeding." 66 Fed. Reg. at 29,461.

In addition to undermining the participants' ability to have equitable and early access to DOE's documentary material, DOE's interpretation would force the Board and the parties to confront a large number of needless additional discovery-related disputes, resulting in a further compromise of the six-month document discovery period as well as inevitable delay in the proceeding. See Tr. at 175. The Commission rejected a proposed design for the LSN system ("Design Option 1") that is technically similar to DOE's current approach (i.e., implementing a search engine on its own web server) when it chose the final central LSN portal design.[54] In rejecting this approach, the Commission stated that it would be "of low benefit in terms of delivering efficient or effective access to users," and determined that this alternative would create "a significant risk that system implementation and operation issues may result in disputes whose resolution could have a negative impact on the agency's ability to meet its three-year schedule for making a decision on repository construction authorization." Id. Given these Commission statements and the critical integrity assurance function the LSN performs, DOE's position that documentary material is "available" for purposes of section 2.1009(b) when DOE places the unindexed material on its own participant server, is wholly inconsistent with the purpose of the LSN, and DOE's assertions to the contrary are unavailing.

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[53] Indeed, the design standards for participant servers do not even require the individual servers to have search and retrieval software capabilities. See 66 Fed. Reg. at 29,458.

To support its position, DOE insists that, because section 2.1009(b) does not expressly state that documentary material must be indexed by the LSN central site prior to certification, DOE's ability to make its certification is not dependent upon the completion of the indexing. See DOE Answer at 4; Tr. at 121-23. To be sure, that particular provision does not allude to the completion of an indexing, but, as previously noted, provisions are not to be read in isolation without regard to the regulatory scheme in its totality. Rather, a provision must be "construed in connection with every other part or section so as to produce a harmonious whole." Sutherland at § 46.05 (6th ed. 2000). And, as we have already discussed, the "general purpose and intent"

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[54] See LSNA Answers at 6. As described by the Commission in the Statement of Considerations:

> Design Option 1 [which the Commission rejected] is characterized by an LSN homepage/website that points end-users to the web accessible documentary collections of each of the participants. The LSN homepage/website adds no value to the inherent information management capabilities found at any of the participant sites. The "LSN site" simply serves as a pointer to other home pages. This option provides no search and retrieval or file delivery processes to any user. The participant website provides the sole search and retrieval tools to access its text documents. Participants may use any software to provide text search and retrieval, and those packages may represent a wide range of capabilities from minimal to fully featured.

65 Fed. Reg. at 50,943.

animating Subpart J is not served by DOE's interpretation of the regulations.

DOE also relies on statements made by the Commission in connection with the promulgation of the June 2004 final rule, which, among other things, further amended the rules applicable to the use of the LSN. See DOE Answer at 5; 69 Fed. Reg. at 32,840. In that issuance, the Commission noted that three commenters, including the State, had requested that, in addition to the DOE certification, the Commission add a second certification by the LSNA that would indicate that the DOE documentary material collection had been indexed and audited. See 69 Fed. Reg. at 32,840. The commenters urged that the LSNA certification serve as the trigger for all subsequent document productions. See id. Rather than addressing the substance of the commenters' request, the Commission noted that the amendment being sought was "outside the scope of this rulemaking" and that the issue "was not raised in the proposed rule and was not intended to be part of this rulemaking effort." Id. The Commission went on to observe that, because "[t]he NRC is pursuing an approach with DOE to ensure that the DOE collection has been indexed and audited by the LSN Administrator in approximately the same time frame as the DOE certification," this approach "should ensure that an indexed and baselined DOE collection will be available to other LSN participants well in advance of the point at which the NRC dockets an acceptable DOE license application." Id.

In DOE's view, the Commission's "rejection" of the commenters' request confirms that the agency's regulations do not require an indexing of DOE's documentary material by the LSN Administrator prior to its certification. See DOE Answer at 5. We disagree. We believe that, as attested to by the LSNA, the Commission's statement merely referred to a joint effort between DOE and the LSNA that would allow the LSN central site to access the DOE document collection and begin the indexing process prior to making the collection publicly available at the time of DOE's certification. See Tr. at 95-97; LSNA Answers at 8; see also DOE Answer, Exh. 13, LSN Guideline 23, Access Control Prior to Initial Certification (March 2004). In this light, it is clear that the Commission simply chose not to address the issue of whether the LSN central site had to complete an indexing of a document collection prior to certification and was under the impression that the timing issue would be moot because DOE and the LSNA were actively working together in such a way that DOE's documentary material would be indexed and available via the LSN essentially simultaneously with DOE's planned document production d of June 30, 2004.[55]

In addition, DOE raises a "fairness" issue, claiming that it would be unfair to conditior DOE's ability to make its certification on the completion of the LSN indexing of its document collection, because the indexing function is beyond DOE's control. See DOE Answer at 5; T 125. This argument, however, is as equally unpersuasive as DOE's previous two claims. Fir DOE had and has considerable involvement and control in the effort to index its documents (the LSN. Had DOE not waited until the eleventh hour to begin making its documents availat the LSN central site for indexing, the issue of timing would likely never arise.[56] Second, whatever burden the regulations place on DOE is greatly outweighed by the unfairness that would be placed on the other participants by DOE failing to put forth a good faith effort to produce all of its documentary material, and failing to make its document collection "available" as contemplated by the Commission by thus significantly reducing the other participants' six-month pre-license application review period. To put these participants at such a disadvantage would discredit this proceeding from the outset.

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[55] In the May 2001 Statement of Considerations – published nearly five months befor the LSN central site actually became operational on October 18, 2001 (see LSNA Answers a 12) – the Commission also recognized "the possibility that there could be a significant perioc between the time the LSN central site becomes operational and the dates upon which [DOE] other potential parties must provide certifications that their existing section 2.1003 document material is accessible." 66 Fed. Reg. at 29,460 n.4. Because the Commission likely made tl observation without knowledge of the date the LSN would be ready to accept material for indexing and without knowledge of the anticipated certification dates of DOE and the other participants, we do not view this statement as being contradictory to the premise underlying t Commission's entire regulatory scheme (i.e., that for purposes of "availability" under sections 2.1003(a) and 2.1009(b), documentary material must be indexed by the LSN Administrator).

[56] DOE did not begin making its documentary material available for indexing until May 2004, despite exhortations from the LSNA that DOE make its documents available for indexi much earlier than that date. See Tr. at 100; see also State Motion, Exh. 2, Letter from Danie Graser, LSNA, to Joseph D. Ziegler, Acting Director, DOE Office of License Application and Strategy (June 27, 2003) at 2. DOE also ignored the Commission's exhortations in May 200 that "the Commission strongly recommends that all those who are parties or potential parties the HLW repository proceeding make every effort to provide access to as much of their exist section 2.1003 documentary material as soon as possible after the LSN central site is operational." 66 Fed. Reg. at 29,460 n.4.

E. Facial Invalidity of Certification

The State's third assertion is that DOE's initial certification "fails to meet the elemental requirements of Subpart J [and thus] is unlawful on its face and of no legal effect." State Motion at 13. The State argues that in contrast to the requirements of 10 C.F.R. §§ 2.1003 and 2.1009(b), see id. at 9-11, the DOE certification merely states that it has made available the documentary material "identified from those documents submitted to CACI by April 15, 2004," id. at 11 (quoting DOE Certification at 1). Thus, it is argued the DOE Certification is facially invalid because it expressly acknowledges that it is limited (a) by the April 15, 2004, cut-off date and (b) to the documents submitted to CACI.

DOE responds by arguing that, in any massive document production such as this, a gap is appropriate. See DOE Answer at 7; Tr. at 128. DOE further states, primarily in response to the Board's nine questions in its July 14 Order, that it was careful to define and explain those documents that it had not included in its production. See DOE Answer at 15-16.

At the outset we note that it is not necessary for us to reach the facial invalidity issue because, given our other rulings today, DOE is obligated to complete its document production and re-certify. Nevertheless, we believe that the following discussion will provide DOE and the other participants with valuable guidance so that future certifications are not inappropriately circumscribed.

Our assessment of this "facial invalidity" argument starts with the recognition that DOE's document production legitimately required a substantial and organized effort. On May 5, 2003, the DOE General Counsel issued a call memo ("Call Memo")[57] to some 94 of its offices and subcontractors. See DOE Answer at 17; DOE Certification Plan at 2. DOE reports that 89 of them provided DOE certifications in response to the Call Memo and five did not. See DOE Answer at 17. Next, presumably DOE and CACI undertook to review the documents submitted in response to the Call Memo to determine if, and how, they needed to be produced, i.e., whether they met the definition of "documentary material," were duplicative, and whether they were privileged and thus only required a header. Further, the record reflects that the DOE Certification was underpinned by three documents of the same date. The Arthur Certification Letter of June 30, 2004, includes Appendix A, a certification by CACI that the "documents identified in Section 4.3 of the [Certification Plan] that were submitted to CACI Inc. by April 15, 2004, have been processed by CACI, Inc. and loaded on the [DOE LSN] server"; Appendix B, a direction by Mr. Arthur that CACI make the documents available on DOE's server; and Appendix C, a certification by CACI that "documents identified in Section 4.3 of the [Certification Plan] for Initial Certification . . . that were submitted to CACI, Inc. by April 15, 2004, have been made electronically available" on DOE's world-wide web server. In short, the DOE Certification is underlain by the Certification Plan and by a certification pyramid of 89 and then three certifications. This is a reasonable approach, so long as it produces a single DOE certification that complies with the regulatory requirements.

Upon review of these documents, however, significant deficiencies are readily apparent. First, we examine the Certification Plan, which is purportedly the basis for all of DOE's efforts. See DOE Answer, Exh. 4. The regulations require that DOE "[e]stablish procedures to implement the requirements in § 2.1003," 10 C.F.R. § 2.1009(a)(2) (emphasis added), and to certify, inter alia, that these procedures "have been implemented." 10 C.F.R. § 2.1009(b) (emphasis added). The first speaks in the future tense, the second speaks in the past tense. The procedures are to precede the implementation and the certification is to assure that the

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[57] The DOE General Counsel issued a related memo on August 9, 2002. See Tr. at 46, 119.

procedures were implemented. In contrast however, the Certification Plan plainly reveals that it was first adopted on June 25, 2004, which can only be after DOE had essentially finished its document collection. See Certification Plan at v. This interpretation is confirmed by the fact that the "plan" repeatedly speaks in the past tense: "the following collections of documents were identified," id. at 2; "the cut-off date of April 15, 2004 was necessary," id. at 3; "CACI was not directed to include," id. at 5; "CACI was authorized to exclude," id.; and "emails that were submitted," id. at 6 (emphasis added in all quotations). This is not a certification "plan"; it is simply a certification report, recording what CACI had already done. Nevertheless, we recognize that DOE is only required to certify that these procedures "have been implemented," see 10 C.F.R. § 2.1009(b), and, regardless of how late the "plan" was adopted, we cannot say that DOE did not implement the actions reflected in this report. The key point is that the Certification Plan and the "documents identified in Section 4.3" of it – the phrase that DOE uses repeatedly in its certification pyramid – can be properly seen as ex post facto limitations as to what DOE actually did, rather than an advance plan for gathering the right documents.[58]

Viewed in this light, DOE's Certification Plan, and particularly Section 4.3 thereof which plays so prominently in DOE's certification pyramid, is facially deficient for the same reasons discussed in Part III.C. Specifically, the Certification Plan section 5 expressly excludes e-mails from "persons other than active users." DOE Certification Plan at 8. These are the same four million archival e-mails that this Board has already addressed in Part III.C. 2 above. Because the DOE Certification expressly incorporates the Certification Plan, non-compliance by the latter triggers non-compliance by the former.

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[58] DOE's June 30, 2004, certification was accompanied by the Certification Plan, first adopted on June 25, 2004, and revised on June 29, 2004, as well as four corollary documents dated slightly earlier. These were (1) the OCRWM [LSN] Certification Plan for Document Collection dated April 16, 2004, (2) the OCRWM [LSN] Compliance Assurance Plan for Document Collection dated April 30, 2004, (3) the OCRWM [LSN] Certification Plan for Document Processing dated May 20, 2004, and (4) the OCRWM [LSN] Compliance Assurance Plan for Document Processing dated May 25, 2004. The June 29, 2004, Certification Plan, section 4.3 lists many categories of documents that were excluded from DOE's document production, while, in contrast, most of these exclusions do not seem to appear on the four earlier documents. As noted earlier, in its May 20, 2004, report the DOE IG stated that DOE faced significant "challenges" in achieving its "planned" review of e-mails and of privileged documents by June 30, 2004. These corollary documents together with the IG report support the appearance that, on June 30, 2004, DOE simply called it a day, issued a certification report reflecting what was excluded, and called it a plan.

Next, turning to the Arthur Certification Letter to NRC of June 30, 2004, and its four exhibits, we find that they, and DOE's Certification, are facially deficient because they are all circumscribed by the phrase "the documents submitted to CACI." We do not know, nor do we wish to delve into, exactly what documents each of DOE's 89 offices and contractors provided to CACI or the wording of (and limitations on) each of their certifications to CACI. Nor does the Certification Plan answer these questions. DOE merely certified that it made available those documents – the word "all' is conspicuously absent – that were submitted to CACI. While we understand DOE's reluctance to say more, this does not comport with the requirement that it certify that the documents required by section 2.1003 (i.e., all documents) have been made available. This is not acceptable.

Finally, we note the other major caveat to the DOE certification – its cut-off date of April 15, 2004. As discussed in Part III.C., we are willing to accept DOE's argument that, in the context of an ongoing project, a reasonable cut-off date for after-created documents is permissible. But a cut-off date that facially excludes extant documents that DOE and its contractors simply had not collected is not acceptable.

In conclusion, we point out that the DOE Certification contrasts sharply with the NRC Certification dated July 30, 2004, that simply states "documentary material specified in 10 C.F.R. § 2.1003 has been identified and made electronically available."[59] No caveats. No cut-off date. Just a straightforward certification of compliance. This is what is required of DOE.[60]

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[59] Certification of Availability of Documentary Material (July 30, 2004) at 1.

[60] Finally, we note that the staff argues that because the State has "neither demonstrate[d] that the purposes or objectives of the regulations have been thwarted nor that

IV. CONCLUSION

We conclude that DOE's June 30, 2004, document production and certification did not comply with the requirements of 10 C.F.R. §§ 2.1003 and 2.1009(b). First, given the 15 years that DOE had to gather, review, and produce its documents and the fact that the date of production was within DOE's control, the significant gaps in the document production, and the incompleteness of its privilege review, it is clear to us that DOE did not meet its obligation, in good faith, to make all reasonable efforts to make all documentary materials available. Second, given that a minimum of six months public access to DOE's produced documents is "at the heart" of the Subpart J system, and that the integrity and validity of the produced documents can only be assured after they have been indexed in the LSN – "the" system for making documents available – we conclude that 10 C.F.R. §§ 2.1003 and 2.1009(b), read in context, require that documents be indexed on the central LSN site before they are deemed available. Finally, as an aside, we note that DOE's certification, expressly founded on the deficient Certification Plan and expressly limited to documents submitted to CACI, appears, on its face, insufficient to comply with the regulations. Accordingly, we find that DOE has not made all of its documentary material available, grant the State's motion to strike DOE's certification, and rule that the State and other potential participants are not required to make their documents available under 10 C.F.R. § 2.1003 until 90 days after DOE makes all of its documents available on the central LSN site, and so certifies.[61]

[DOE] is not in timely and substantial compliance with the electronic availability requirements," NRC Answer at 13, the State has not met its burden of proof to show that DOE's certification should be stricken, see id.; Tr. at 141, 160-61. Contrary to the staff's view, we find that the State sufficiently met its burden by providing us with ample legal authority and specific facts in support of its position, particularly in light of the fact that DOE was given 15 years to comply, and the State, pursuant to 10 C.F.R. § 2.323, had only ten days (during which time the DOE website was down approximately half of the time) within which to review DOE's document collection and prepare its motion. The State's motion, the DOE answers to our questions, and the testimony and answers of the LSNA provide ample information to support today's ruling.

[61] It does not appear that it will take DOE a significant amount of time to complete its processing of the outstanding documents prior to being able make a recertification. With respect to the 55,000 late-gathered documents, DOE estimated that it would take 4-6 weeks

Pursuant to 10 C.F.R. § 2.1015(b), any party to the proceeding seeking to appeal this ruling must file a notice of appeal and supporting brief with the Commission within ten (10) days after electronic service of this Memorandum and Order. That same provision provides that "[a]ny other party . . . may file a brief in opposition to the appeal no later than ten (10) days after service of the appeal." 10 C.F.R. § 2.1015(b).

It is so ORDERED.

THE PRE-LICENSE APPLICATION
PRESIDING OFFICER BOARD

/ra/

Thomas S. Moore, Chairman
ADMINISTRATIVE JUDGE

/ra/

Alex S. Karlin

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from July 27 for its contractor to process those documents. See Tr. at 78-79. During that same time, DOE will continue to process the 26,000 e-mails, which DOE estimates will require only three to four weeks to complete. See Tr. at 82. Relative to the "several hundred thousand" documents that were still undergoing the second step of the privilege review process, DOE did not provide an estimated completion date. Assuming, however, that "several hundred thousand" documents means something on the order of 400,000 documents, DOE's review team, which has an average review rate of 20,000 documents per day, see Tr. at 88, should have been able to complete step two of the privilege review process within 20 days. We also expect that DOE, considering the substantial resources it has at its disposal, will be able to resolve shortly the technical difficulties it encountered in converting the 18,000 encrypted e-mails. See Tr. at 83. In addition, although DOE did not indicate how long it would take to review and process the four million "archival" e-mails, we do not expect that an inordinate amount of time would be required to complete the review of these e-mails. In response to recommendations made by the DOE IG in its May 2004 report, DOE's OCRWM expressed confidence that the electronic and manual processing of the 6.4 million e-mails, which was begun in late February 2004, could be completed by May 15, 2004. See DOE IG Report at 2; id., Appendix 2 at 7. At this rate, DOE should be able to process the remaining four million e-mails within a relatively short period of time. Finally, the LSNA estimated on July 23, 2004, that indexing the remaining half of DOE's full text document collection would require a minimum of six weeks to complete (i.e., until September 3). See LSNA Answers at 12.

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ADMINISTRATIVE JUDGE

/ra/

Alan S. Rosenthal
ADMINISTRATIVE JUDGE

Rockville, Maryland

August 31, 2004

THE ENERGY POLICY ACT OF 2005: ENSURING JOBS FOR OUR FUTURE WITH SECURE AND RELIABLE ENERGY

WEDNESDAY, FEBRUARY 16, 2005

HOUSE OF REPRESENTATIVES,
COMMITTEE ON ENERGY AND COMMERCE,
SUBCOMMITTEE ON ENERGY AND AIR QUALITY,
Washington, DC.

The subcommittee met, pursuant to notice, at 11:10 a.m., in room 2322 of the Rayburn House Office Building, Hon. Ralph M. Hall (chairman) presiding.

Members present: Representatives Hall, Whitfield, Shimkus, Radanovich, Walden, Otter, Sullivan, Murphy, Burgess, Barton (ex officio), Boucher, Waxman, Markey, Green, Strickland, Capps, Allen, Solis, Gonzalez, and Dingell (ex officio).

Staff present: Mark Menezes, chief counsel for energy and the environment; Margaret Caravelli, majority counsel; Kurt Bilas, majority counsel; Maryam Sabbaghian, majority counsel; Annie Caputo, majority counsel; Tom Hassenboehler, majority counsel; Peter Kielty, legislative clerk; Sue Sheridan, senior minority counsel; Dick Frandsen, senior minority counsel; Michael Goo, minority counsel; and Bruce Harris, minority professional staff.

Mr. HALL. The subcommittee will come to order. Today, the committee continues its hearing from last week on the Energy Policy Act of 2005, Ensuring Jobs For Our Future With Security and Reliable Energy.

Today, we will continue to hear from individuals representing various industry groups and environmental and consumer advocates. Because this is a continuation of last week's hearing, we are not going to be having opening statements and therefore, we will head right straight into the fourth of five total panels.

We have reached an agreement to include written statements and letters by some of those who want to submit them for the record. Without objection, it is so ordered.

Mr. Boucher and I want to thank all the witnesses for your time and we welcome your views with respect to this legislation, especially your guidance with respect to issues that face your industry as they relate to our Nation and our people's energy security. With that, we will get under way.

Our first witness will be Red Cavaney, President of API. Well-known. A graduate in economics and history from the University of Southern California. Served three tours of combat duty in Vietnam, so he ought to be a good battler in this energy fight here. A little history of success.

I recognize you for 5 minutes, or as little time as you care to use. You need to put your microphone on, please, sir.

Mr. CAVANEY. Oh, sorry. Apologies.

STATEMENTS OF RED CAVANEY, PRESIDENT, AMERICAN PETROLEUM INSTITUTE; BOB DINNEEN, PRESIDENT AND CHIEF EXECUTIVE OFFICER, RENEWABLE FUELS ASSOCIATION; BOB SLAUGHTER, PRESIDENT, NATIONAL PETROCHEMICAL AND REFINERS ASSOCIATION; ERIK D. OLSON, SENIOR ATTORNEY, NATURAL RESOURCES DEFENSE COUNCIL; LEE FULLER, VICE PRESIDENT OF GOVERNMENT RELATIONS, INDEPENDENT PETROLEUM ASSOCIATION OF AMERICA; LAURENCE M. DOWNES, CHAIRMAN, AMERICAN GAS ASSOCIATION; GERALD A. NORLANDER, EXECUTIVE DIRECTOR, PUBLIC UTILITY LAW PROJECT; DAVID HAMILTON, DIRECTOR, GLOBAL WARMING AND ENERGY PROGRAMS; AND DONALD F. SANTA, JR., PRESIDENT, INTERSTATE NATURAL GAS ASSOCIATION

Mr. CAVANEY. Mr. Chairman, Chairman Barton, members of the Committee, I appreciate this opportunity to present the view of API and its members on National Energy legislation. We support passage of comprehensive energy legislation consistent with the H.R. 6 Conference Report passed by the House of Representatives last year. We are please that both the subcommittee and the full committee are moving aggressively to pass it. Your swift action will send a powerful signal that the new Congress recognizes the urgent need to address the serious energy problems facing the Nation. My written testimony, submitted for the record, details a number of recommended issues related to energy production, energy efficiency and conservation, access, infrastructure, and fuels.

Today, I will focus on a major threat to the U.S. oil and natural gas industry that a comprehensive energy bill should alleviate. Oil and natural gas currently meet two-thirds of America's energy needs, and tens of billions of dollars in capital investment are needed to keep pace with increasing demand. That investment, the industry's future, and consumer well-being are, however, being threatened by defective product-liability lawsuits for company's use of an EPA-approved fuel additive, MTBE.

In 1990, when Congress imposed the Federal RFG oxygen requirement in cities with the worst air quality, the authors of the legislation and others said on the floor of the House and Senate that MTBE would have to be used in significant quantities to comply with this requirement. As well, the EPA approved MTBE's use as fuel additive. Today, companies who have used MTBE to comply with the oxygen requirement are facing multi-million dollar suits brought by personal injury lawyers with claims that gasoline containing the fuel additive was a defective product; yet use of MTBE to meet the oxygen requirement is exactly what Congress mandated 14 years ago.

This is, above all, an issue of fairness. Any industry that acts as mandated by the Federal Government to meet a societal need, in this case cleaner air and improved health, should not later be victimized for doing what the government required it to do. Our company has acted in good faith and heeded the Federal Government's call to use MTBE to enhance air quality. What we ask is that the Federal Government also act in good faith to protect us against lawsuits for doing what the law required us to do.

If we are not protected against these suits, one need only look at the asbestos industry to see the disastrous consequences of this breech of faith by government. Unlimited, unrestrained lawsuits of this type create massive uncertainly, discourage investment, and threaten jobs. This is an opportunity for Congress to address this egregious abuse of our Nation's legal system.

There is a history of the Federal Government protecting vital businesses and industries against adverse economic consequences, especially when these parties have acted in good faith in complying with the law. In 1976, the manufactures of the swine flue vaccine responded to the government's call for the immediate mass-immunization of the general public by mass producing the needed vaccine. When insurance companies refused to insure the manufacturers of the vaccine over concerns regarding vaccine-related injuries, the government stepped in to protect manufacturers against personal-injury claims. Later, in 1994, Congress went so far as to provide immunity to manufactures of small, non-commercial carrier airplanes from civil liability suits for accidents involving aircraft and certain parts in use beyond their expected useful lives. With manufacturers facing endless court claims, passage of the General Aviation Revitalization Act of 1994 ensured the availability of insurance coverage, sufficient to enable the industry to remain in business in the United States.

Let me stress that the defective product provision would not in any way affect the company's legal responsibility to clean up any groundwater affected by gasoline, regardless of whether or not it contains oxygenates. The authority remains in force in the Resource Conservation and Recovery Act, the Federal Clean Water Act, and States' Clean Water Acts. Cleanup of any orphaned underground storage tank releases is covered by the LUST fund. Moreover, EPA has determined that more than 95 percent of all cleanups have been paid for by the responsible parties, private insurance, or State cleanup funds that are funded by taxes on petroleum products.

For this and many other important reasons, Congress needs to pass the comprehensive energy legislation early in the new session. Too much is at stake for our country, our economy, and our place in the world to delay any action further on this urgent, national priority. Thank you.

[The prepared statement of Red Cavaney follows:]

PREPARED STATEMENT OF RED CAVANEY, PRESIDENT AND CEO, AMERICAN PETROLEUM INSTITUTE

I am Red Cavaney, President and CEO of the American Petroleum Institute. API is a national trade association representing more than 400 companies engaged in all sectors of the U.S. oil and natural gas industry.

API welcomes this opportunity to present the views of its member companies on national energy legislation. We support passage of comprehensive energy legislation consistent with the H.R. 6 conference report passed by the House of Representatives in the last Congress. We are pleased that the Subcommittee and the full Committee are moving aggressively to pass it. Your swift action will send a powerful signal that the new Congress recognizes the need to address the serious energy problems facing our Nation. We also very much appreciate the House's action in passing national energy legislation several times over the past four years.

The Need for National Energy Legislation

The sad fact is that the current policy framework has failed U.S. consumers. The net effect of current oil and natural gas policy is to decrease reliance on U.S. production and increase dependence on foreign imports. Moreover, while crude oil imports have been growing for some time, product imports have also started to grow due to constraints on U.S. refining capacity.

Four years ago, when Congress began debating national energy policy, we recognized the steadily growing U.S. demand for energy of all types. Today, that growth in demand continues to increase. Recently, the DOE Energy Information Administration issued forecasts of increased energy demand from 2003 to 2025. EIA projects that:

- Real GDP will increase by 95 percent;
- Population will increase by 20 percent;
- Total energy consumption will increase by 36 percent;
- Petroleum demand will increase by 39 percent;
- Natural gas demand will increase by 40 percent;
- Coal demand will increase by 34 percent; and
- Electricity consumption will increase by 50 percent.

Global Energy Situation

We cannot discuss the challenge of meeting the growing U.S. energy demand without first understanding the global energy situation. In the world of energy, the U.S. must operate in a global market. What others do in that market matters greatly.

Look at what happened just last year. World demand for crude oil typically grows annually a bit more than 1 million barrels per day. In 2004, it grew 2.7 million barrels per day—to a point too closely approaching total worldwide production capacity.

Not surprisingly, China has played a big role in the increase in world oil demand, and India will not be too far behind in the future. China, long self-sufficient in oil, is now becoming one of the world's biggest importers. China accounted for more than half of world oil-demand growth in 2002 and 2003. The highly regarded energy analyst Daniel Yergin has noted that, over the next 10 years, Chinese and Indian oil companies will emerge as major players in the global oil industry.

Correspondingly, the International Energy Agency (IEA) forecasts oil demand in South Asia will grow by 3.3 percent per year between 2000 and 2030, the highest of any region in the world.

A comprehensive U.S. energy policy must recognize the growing impact of these new, major competitors for energy supply in the world. For the U.S. to secure energy for its economy, government policies must create a level playing field for U.S. companies to ensure international supply competitiveness. With the net effect of current U.S. policy serving to decrease U.S. oil and gas production and increase our reliance on imports, this international competitiveness point is vital. In fact, it is a matter of national security.

A Need for Action

These global realities underscore the need for action to meet the energy challenges facing the United States. Experience tells us that—in a nation with an economy and way of life so tied to energy—inaction comes at a high cost.

What is so difficult to understand is how we could have failed to act on energy at a time when the nation has been beset by energy problems. Just look back over the last four years:

- An estimated loss of one-half to a full percentage point of GDP growth already, according to published reports, to say nothing of the related job losses, caused by higher prices, a worsening trade deficit, and a loss in international competitiveness;
- Gasoline and diesel price spikes and tight supplies in the Midwest and elsewhere;
- Declining U.S. natural gas production in the face of increased demand, resulting in high prices and greater market volatility;
- Soaring heating oil prices and tight supplies in New England; and
- Electric power blackouts in the Northeast and in portions of California.

These are the results of a failed energy policy. While no energy bill will solve all the energy problems facing our country, inaction has a direct and harmful impact on all U.S. energy-users: small business men and women, home-owners, schools and hospitals, stores, factories, and businesses of all sizes and types all over this country. Failing to pass national energy legislation hurts real people—those who rely on energy to heat their homes, fuel their vehicles, and power their small businesses. They are the ones who bear the brunt of higher energy prices and supply disruptions.

Clearly, action on energy policy is long overdue. Congress needs to approve a comprehensive, national energy policy. The key word is comprehensive. A piece-meal approach is not the answer.

Enactment of this legislation will ensure diversity in energy supplies; promote energy efficiency, new technologies, conservation, and environmentally responsible production; modernize America's energy infrastructure; strengthen our economy; and create new jobs.

What follows are API's more detailed views on components of the energy legislation:

Defective Product Liability

Comprehensive energy legislation must address a major threat to the U.S. oil and natural gas industry. Oil and natural gas meet two-thirds of America's energy needs, but tens of billions of additional dollars in capital investment are needed to keep pace with increasing demand. That investment, the industry's future and consumer well-being are, however, being threatened by defective product liability lawsuits for companies' use of the EPA-approved fuel additive MTBE. Under a defective product claim, if the defendant simply put the product into the stream of commerce, regardless of having exercised proper care, the defendant can be found liable.

In 1990, when Congress imposed the federal reformulated gasoline (RFG) oxygen requirement in cities with the worst air quality, the authors of the legislation and others said on the floor of the House and Senate that MTBE would have to be used in significant quantities to meet this federal requirement. There were two oxygenates available for RFG—ethanol and MTBE. Both were approved for use by EPA, but the ethanol industry was in its infancy and unable to supply adequate volumes to meet the demand for RFG. A decision to use ethanol in most areas of the country would have put supply in jeopardy and increased costs, which would have impacted consumers. Since there was insufficient ethanol to meet overall RFG demand, the only choice for most producers was to use MTBE or break the law.

Today, companies who used MTBE to comply with the oxygenate requirement are facing multi-million dollar suits brought by personal injury lawyers with claims that gasoline containing the fuel additive was a defective product. Yet, use of MTBE to meet the oxygenate mandate is exactly what Congress mandated 14 years ago.

This is, above all, an issue of fairness. Any industry that acts, as mandated by the federal government, to meet a societal need—in this case, cleaner air and improved health—should not later be victimized for doing what the government required it to do. Our companies acted in good faith and heeded the federal government's call to use MTBE to enhance air quality. What we ask is that the federal government also act in good faith to protect us against defective product lawsuits for doing what the law required us to do.

If we are not protected against this type of litigation, one need only look at the asbestos industry to see the disastrous consequences of this breach of faith by government. Unlimited, unrestrained defective product lawsuits create massive uncertainty, discourage investment and threaten jobs. We have seen in asbestos cases the results produced by entrepreneurial trial lawyers: scores of bankruptcies, job losses, and retarded growth. Likewise, in MTBE litigation, trial lawyers are marketing these cases to municipalities and water districts. This is an opportunity for Congress to address this egregious abuse of our nation's legal system.

There is a history of the federal government protecting vital businesses and industries from unfair consequences, especially when they have acted in good faith in complying with the law. In 1976, the manufacturers of the Swine Flu vaccine responded to the government's call for the immediate mass immunization of the public by mass producing the needed vaccine. When insurance companies refused to insure the manufacturers of the vaccine over concerns regarding vaccine-related injuries, the government stepped in to protect manufacturers against personal injury claims.

Later, in 1994, Congress went so far as to provide immunity to manufacturers of small non-commercial carrier airplanes from civil liability suits for accidents involving aircraft and certain parts in use beyond their expected service lives. Businesses were being sued under defective product claims up to 40 years after manufacturing an aircraft. Again, Congress decided to take action in the interest of fairness because the general aviation industry, facing endless tort claims, was all but brought to its knees due to this exploitation of the legal system. Passage of the General Aviation Revitalization Act of 1994 insured the availability of insurance coverage sufficient to enable the industry to remain in business in the U.S.

The energy bill includes a narrowly tailored provision—approved by the House of Representatives last year—that would apply only to defective product claims under products liability law. This provision simply and fairly recognizes that when Congress mandated the use of fuels components, and when those components have been studied and approved by EPA, their mere presence in gasoline should not make it a "defective" product. Such a designation in court enables trial lawyers to bypass proof of wrongdoing.

Let me stress that the defective product provision would not affect, in any way, a company's legal responsibility to clean up any groundwater affected by gasoline, regardless of whether it contained oxygenates. That authority remains in force in the Resource Conservation and Recovery Act (RCRA), the federal Clean Water Act, and states' Clean Water Acts. Cleanup of any "orphan" underground storage tank release is covered by the LUST fund. Full cleanup coverage will continue in force. Moreover, EPA has determined that more than 95 percent of all cleanups have been paid for by the responsible parties, private insurance or state cleanup funds that are funded by taxes on petroleum products.

Underground storage tank laws would still apply if gasoline were released and migrated into a well or a public drinking water supply. There would be no defective product relief if EPA requirements are violated.

This is not an issue limited to the petroleum industry, but should be of concern to all businesses and industries that could face similar lawsuits for complying with congressional mandates.

We also support the LUST provisions of the fuels title that will significantly strengthen the federal underground storage tank program. These provisions would expand the LUST trust funds for enforcement, inspection, training and remediation of oxygenated-fuel releases. The bill would enhance the nation's overall cleanup efforts by ensuring that states have the funds they need to address "orphan sites," where the responsible party for a leak cannot be identified.

Refining Capacity

The expansion of refinery capacity must also be a national priority. Recent gasoline price increases, while primarily caused by increased crude oil prices, have underscored the fact that U.S. demand for petroleum products has been growing faster than—and now exceeds growth in domestic refining capacity. While refiners have increased the efficiency, utilization and capacity of existing refineries, these efforts have not enabled the refining industry to keep up with growing demand. Even with a projected expansion of product imports of 90 percent, DOE's Energy Information Administration forecasts a need for 5.5 million barrels a day of additional refinery capacity and a 2 percent increase in refinery utilization.

Government policies are needed to create a climate conducive to investments to expand refining capacity. The refining situation needs to be addressed now. The federal government needs to act as a facilitator for coordinating and ensuring the timely review of federal, state and local permits to expand capacity at existing refineries and possibly even build a new refinery. Passage of the energy bill would be an important step by encouraging new energy supply and streamlining regulations, leading to greater production and distribution flexibility.

Fuels Issues

API and its members support the fuels title that was contained in the H.R. 6 conference report approved by the House in the last Congress. The fuels title would repeal the federal oxygenate requirement for reformulated gasoline and require a national phasedown of MTBE. It also provides a renewable fuels standard phasing up to 5 billion gallons, with a credit trading program to allow the use of renewable fuels where most feasible and cost-effective.

The fuels provisions are needed to discourage state MTBE bans and other specialty fuel requirements. Individual state requirements can increase the number of fuels required within supply regions, thereby increasing the potential for fuel distribution and supply problems. Twenty states have already enacted uncoordinated MTBE bans, caps, or other limits; and other states are considering them.

API, the National Petrochemical & Refiners Association, fuel marketers, and numerous farm and ethanol interests support these fuels provisions. They offer carefully considered solutions to the fuels problems that have challenged fuel providers and burden energy consumers.

Boutique Fuels

Passage of comprehensive energy legislation consistent with the H.R. 6 conference report passed by the House last year is the best way to address the boutique fuels problem. The fuels title of H.R. 6 would repeal the federal reformulated gasoline oxygenate requirement in the Clean Air Act, a major driver of boutique fuels. It would also require that EPA consult with DOE on the supply and distribution impacts of new state requests for specialized fuels. Finally, the bill would require EPA and DOE to conduct a comprehensive study of the impacts of boutique fuels and make recommendations to Congress for addressing them, within 18 months of enactment. Given these significant changes and the benefit of the study recommendations, we urge members of Congress to resist imposition of any additional fuel specification changes outside the context of the national energy legislation.

Federal Lands

Currently, only about 1.5 percent of all federal lands onshore and one-half percent offshore are under lease and producing oil and natural gas, according to the U.S. Department of the Interior. Only 11 percent of the offshore submerged lands under U.S. jurisdiction are available for leasing. Huge areas off the east and west coasts and in the Eastern Gulf of Mexico have been placed "off limits."

Comprehensive energy legislation must address a number of exploration and production issues for non-park federal lands and offshore resources, including increased access; streamlined and expedited regulatory and permitting processes; and better coordination between state and federal agencies. Access should be provided to the potentially vast oil resources beneath a small portion of ANWR in northeastern Alaska that could provide the equivalent of current oil imports from Saudi Arabia for more than 20 years.

Natural Gas

Comprehensive energy legislation will also help America develop and diversify its sources of natural gas supply, both domestically and internationally, to meet increased demand for clean-burning natural gas. DOE projects total demand for natural gas will increase by 40 percent by 2025, primarily as a result of its increased use for electricity generation and industrial applications.

America's natural gas policy has encouraged the use of this clean-burning fuel while discouraging the development of new supplies. The result is the current tight supply/demand balance and the prospect of continual future tightening, if action is not taken. Natural gas markets have distributed supplies efficiently, but prices have risen and markets have become more volatile due to the tight supply/demand balance. To ensure the long-term availability of adequate, affordable natural gas supplies, the nation must develop its abundant domestic supplies and diversify its supplies by tapping into global supplies through liquefied natural gas (LNG).

However, there is no "silver bullet"—no single policy to alleviate the tight supply/demand balance. Rather, a balanced portfolio of policies is needed. Both comprehensive energy legislation and regulatory changes are overdue. While conservation and efficiency can have important, near-term effects and must be pursued, the urgent need to develop future supplies must also be addressed. For too long, the supply side of the equation has been ignored. Much of the domestic resource base has been placed "off limits"—either directly through withdrawals and moratoria or indirectly through constraints on operations that delay development and/or make it uneconomic.

API's natural gas policy suggestions can be summarized in one phrase: implement the policy recommendations in the National Petroleum Council's (NPC) 2003 study, "Balancing Natural Gas Policy: Fueling the Demands of a Growing Economy." Key recommendation include:

- *Expanding access to world gas supplies.* Expediting the approval process for expanding existing LNG terminals and constructing new facilities is essential.
- *Increasing access to non-park, non-wilderness onshore areas and reducing permitting costs and delays.* More than half the technically recoverable resources in the Rockies are either off limits or highly restricted—that is enough natural gas (about 125 trillion cubic feet (Tcf) to heat the 60 million homes currently using natural gas for 30 years.
- *Lifting constraints on key offshore areas with high-resource potential.* Only 11 percent of the offshore submerged lands under U.S. jurisdiction are available for leasing. Administrative moratoria preclude exploration and development in many OCS areas until 2012—at least 79 Tcf is off limits off the East and West Coasts and in the Eastern Gulf of Mexico (and this estimate may be low as it is based on old and limited data).
- *Developing infrastructure to deliver natural gas supplies to consumers.* Large resources of Alaskan natural gas will be stranded until a pipeline can be built to move this gas to consumers in the lower 48 states. A simple and timely regulatory process is needed.

The hydraulic fracturing and stormwater provisions of the energy bill will have a positive impact on natural gas, as well as oil, exploration and production:

Hydraulic Fracturing. The energy bill clarifies that hydraulic fracturing should not be regulated under the Safe Drinking Water Act. Fracturing technology plays a particularly important role in developing nonconventional resources such as coalbed natural gas (CBNG) and natural gas trapped in sand stone (in the west, nearshore and offshore Gulf of Mexico, and Alaska's Cook Inlet). Nonconventional resources must play a greater role in supplying future domestic natural gas supplies. The National Petroleum Council estimates that 60 to 80 percent of all wells drilled in the next decade will require fracturing. Any uncertainty about regulation of such operations should be removed. CBNG, in particular, might be developed and brought to the market more quickly than more remote Arctic or deepwater reserves.

Stormwater. The energy bill provides a needed clarification that the existing exploration and production (E&P) exemption applies to E&P construction activities too. Despite an explicit exemption in the Clean Water Act for stormwater discharged from E&P operations, recent regulatory proposals have sought to subject construction at E&P sites to the type of stormwater requirements imposed on other types of construction activities like the building of shopping centers. This regulatory approach is counter to congressional intent and imposes unnecessary costs on domestic E&P operations.

Liquefied Natural Gas (LNG)

Increased import capacity for liquefied natural gas, or LNG, is absolutely critical to meeting projected natural gas demand. LNG currently provides 2 percent of the nation's natural gas, a figure that could rise to 21 percent by 2025, according to DOE. LNG can provide a dependable and competitive supply link to some of the largest, underutilized gas resources in the world. However, complicated rules stand in the way of bringing increased supplies of LNG to U.S. markets. Improved federal and state policy coordination is needed to facilitate the siting, construction and licensing of LNG import terminals.

The energy legislation will make a real contribution to the timely consideration of permit applications for the siting and construction of LNG imports and pipeline infrastructure and the delivery of natural gas to consumers. Provisions of the bill will:

- Guard against any attempts to change the FERC policy decision in the Hackberry Case. This policy decision allows companies to develop integrated LNG projects, which is important to reducing the financial risk associated with these large, complex projects.
- Clarify that FERC has exclusive authority for onshore terminal siting decisions, and require other federal and state agencies involved in permitting to work within the FERC process. Final decisions should be made within one year of the original application.
- Specify that the extensive record developed by FERC or the Coast Guard (for offshore facilities) in their certificate and permitting proceedings must be used by other agencies in any administrative appeals concerning a project that has been reviewed by either of the lead agencies.

Conclusion

All of these energy issues and concerns you will hear today add up to a need for action. America's energy problems are becoming acute. Congress needs to pass comprehensive energy legislation early in the new session. Too much is at stake for our country, our economy, and our place in the world to delay action any longer on this urgent national priority.

Mr. HALL. I recognize you for 5 minutes at this time, Mr. Dinneen. And I want to recognize the presence, and appreciate the presence, of the Chairman of the big committee, Energy and Commerce Chairman Barton of Texas. Mr. Dinneen.

STATEMENT OF BOB DINNEEN

Mr. DINNEEN. Good morning, Mr. Chairman and members of the subcommittee. Thank you for this opportunity to testify, and I want to thank you in particular for surrounding me by my good friends in the petroleum industry.

When I last testified before this committee in 2002, I proudly announced the production of more than 2 billion gallons of ethanol for the very first time. Since then, the industry has continued its record growth. In 2004, the 81 ethanol plants across the United States produced more than 3.4 billion gallons of ethanol from over 1.25 billion bushels of grain. There are another 16 plants and 2 major expansion currently under construction that will add another 754 million gallons of capacity and bring the industry's total production capacity to more than 4.4 billion gallons by the end of this year.

Today, ethanol is blended in one-third of the Nation's gasoline. This level of ethanol production and use is providing significant economic and energy benefits for the Nation. The ethanol industry added more than $25 billion to the Nation's gross economic output last year. The industry is now responsible for over 147,000 jobs across all sectors of the economy. Domestic ethanol production currently displaces approximately 400,000 barrels of oil a day, and last year, the use of ethanol reduce greenhouse gas emission by 7 million tons, or the equivalent of taking a million vehicles off the road.

As the industry grows, it is changing, becoming much more energy efficient. According to the most recent analysis by the U.S. Department of Agriculture, ethanol now yields 167 percent of the fossil energy used to grow, harvest, transport, and refine grain into ethanol. That represents a 24 percent improving in efficiency since USDA completed a similar analysis just 4 years ago.

The industry is changing in other ways as well. Virtually all of the new production is from farmer-owned ethanol facilities. Indeed, with more than 40 percent of the industry's capacity taken together, farmed-owned ethanol plants now represent the single, largest producer of ethanol across the country.

The tremendous growth in ethanol demand over the last several years is a direct response to State efforts to reduce the use of MTBE. This past year, ethanol successfully replaced MTBE in California, New York, and Connecticut. Due to the diligent efforts of both the ethanol and the petroleum industries, the switch to ethanol went off without a hitch in terms of supply, price, and air quality.

While we believe we can continue to successfully replace MTBE in RFG areas where it is being phased out, we have also heard the requests of our customers for greater flexibility in meeting Clean Air Act requirements. Consequently, we have worked for several years to develop a consensus proposal that addresses the concerns of a number of stakeholders. We are proud to be part of a unique coalition that includes the API in support of a fuels package that will provide our industry with greater marketplace certainty and refiners with greater marketplace flexibility.

The RFA commends the leadership of Chairman Barton and this committee for including a comprehensive fuels package in the Draft Energy Policy Act of 2005. The Energy Policy Act of 2005 provides a Federal resolution to persistent concerns related to MTBE, avoiding a patchwork of State actions. It maintains the existing Clean Air benefits of Federal RFG. It provides refiners with the flexibility they have sought by eliminating the Federal oxygen requirement. And it provides marketplace certainly to farmers and ethanol producers by including a renewable fuel standard. The RFS included in the Energy Policy Act boosts the demand for renewable fuels such as ethanol and biodiesel to 5 billion gallons by 2012. As the industry has now grown to the point where it will produce more than 4 billions gallons of ethanol this year, however, it should be obvious that the ethanol industry could supply a much greater volume of ethanol under an RFS.

With good crude oil prices topping $50 a barrel and gasoline prices across the country once again on the rise, consumers are seeking the increased production use of domestic renewable fuels as a means of adding to supply and lowering prices. Consequently, we would hope that as the legislative process regarding the energy bill progresses, Congress would recognize the potential of U.S. ethanol companies to increase production and seek to expand the volume—excuse me—of ethanol—excuse me—in the RFS program. This all gets me choked up.

Mr. Chairman, the RFA is committed to working with you and members of the committee as this process moves forward to finalize an energy bill that assures a reliable fuel supply, lowers consumer fuel costs, protects the environment, and stimulates further growth and develop of domestic renewable fuels such as ethanol and biodiesel. Thank you.

[The prepared statement of Bob Dinneen follows:]

PREPARED STATEMENT OF BOB DINNEEN, PRESIDENT, RENEWABLE FUELS ASSOCIATION

Good morning, Mr. Chairman and Members of the Subcommittee. My name is Bob Dinneen and I am president of the Renewable Fuels Association, the national trade association for the domestic ethanol industry. The RFA represents the 81 ethanol producing companies across the United States that last year produced more than 3.41 billion gallons of ethanol from over 1.25 billion bushels of grain.

I greatly appreciate the opportunity to testify. Your review of national energy policy and your efforts to formulate a comprehensive energy bill are very much needed. With rising crude oil costs, declining gasoline inventories and natural gas shortages across the country, it is clear the nation needs an energy policy that focuses on increased production, particularly from domestic renewable sources like ethanol that can help build a sustainable energy future.

Mr. Chairman, I can tell you the U.S. ethanol industry is already doing its part. Ethanol producers are expanding at an unprecedented rate to extend gasoline supplies and provide the octane and oxygen refiners need to meet air quality and performance standards. When I last testified before this Committee in 2002, I proudly announced the production of more than 2 billion gallons of ethanol for the first time. Since then, the industry has continued its record growth.

In 2004, the U.S. ethanol industry opened 12 new state-of-the-art production facilities, bringing the industry's total annual production capacity to more than 3.6 billion gallons. There are another 16 new plants and 2 major expansions at existing facilities currently under construction that add another 754 million gallons of capacity and bring the industry's total production capacity to more than 4.4 billion gallons. This year, the U.S. ethanol industry is on pace to process 1.5 billion bushels of grain in the production of more than 4 billion gallons of ethanol.

Today, ethanol is blended into more than a third of the nation's gasoline. This level of ethanol production and use is providing significant economic and energy benefits for the nation.

- Last year, the ethanol industry added more than $25 billion to the nation's gross economic output through annual operating spending and capital spending for new plants.
- The industry is now responsible for over 147,000 jobs across all sectors of the economy.
- Ethanol producers spent more than $3.1 billion on grain, using 13% of the corn and sorghum crops and becoming the third largest consumer of each, behind only feed and export. In fact, at a time when export markets are stagnating or declining, ethanol is providing farmers a critically important value added market.

- Another $4.4 billion went directly to consumers this past year through increased economic activity and new jobs—money that will go to pay for school shoes and college tuition and putting food on the table.
- And federal and state governments collected almost two-and-a-half billion dollars in needed tax revenues from the ethanol industry.

Domestic ethanol production displaced approximately 400,000 barrels of oil a day in 2004, about the volume of oil the U.S. imported from Iraq prior to the war. And the environmental benefits are significant also. According to Argonne National Laboratory, the use of ethanol in 2004 reduced greenhouse gas emissions by 7 million tons, or the equivalent of taking more than a million cars off the roads.

As the industry grows, it is changing, becoming more and more energy efficient with new production facilities using the latest and most efficient technologies. According to the most recent analysis by the U.S. Department of Agriculture, ethanol now yields 167% of the fossil energy used to grow, harvest, transport and refine grain into ethanol. That represents a 24% improvement in efficiency since USDA completed a similar analysis just four years ago.

The industry is changing in other ways as well. Virtually all of the new production capacity is from farmer-owned ethanol facilities as farmers seek to take direct advantage of the value-added and rural economic development benefits of ethanol processing. Indeed, with more than 40 percent of the industry's capacity, taken together farmer-owned ethanol plants now represent the single largest producer of ethanol across the country.The tremendous growth in ethanol demand over the last several years is a direct response to state efforts to reduce the use of MTBE. To date, nineteen states have acted to phase out the use of MTBE, and the ethanol industry has acted responsibly to build additional capacity so that refiners could continue to supply consumers with competitive fuels that meet federal Clean Air Act requirements.

The ethanol industry has developed a strong track record of seamlessly replacing MTBE in major gasoline markets. This past year, ethanol successfully replaced MTBE in California, New York and Connecticut. Due to the diligent work of both the ethanol and petroleum industries, the switch to ethanol went off without a hitch. Consider this statement by the Coalition of Northeastern Governors Policy Research Center:

> "The supply and infrastructure challenges to implement the New York and Connecticut MTBE bans have been successfully met by the petroleum and ethanol industries to date. An adequate ethanol distribution system was developed; adequate stocks of ethanol have been in place; distribution terminals were retrofitted to accommodate ethanol delivery, storage and blending; and adequate stocks of reformulated blendstock used for ethanol blending have been produced and distributed. *MTBE ban induced price increases have not been reported by EIA [U.S. Energy Information Administration], New York or Connecticut who are monitoring prices. California energy officials report a similar experience in meeting their January 2004 MTBE ban."* (emphasis added)

While we believe we can continue to successfully replace MTBE in RFG areas where it is being phased out, we have also heard the requests of our customers for greater flexibility in meeting Clean Air Act requirements, i.e., eliminating the federal oxygen standard. Consequently, we have worked for several years to develop a consensus proposal that addresses the concerns of a number of stakeholders, including environmentalists, oil companies and farmers. We are proud to be part of a unique coalition that includes the American Petroleum Institute in support of a fuels package that includes replacing the existing oxygen standard with a new more flexible renewable fuels standard (RFS) while preserving the air quality benefits of the federal reformulated gasoline program.

The RFA commends the leadership of the Chairman and this Committee for including a renewable fuels standard in the draft Energy Policy Act of 2005.

The Energy Policy Act of 2005 provides a federal resolution to persistent concerns related to MTBE, avoiding a patchwork of state actions. It maintains the existing clean air benefits of federal RFG with strong anti-backsliding provisions. It provides refiners with the flexibility they have sought in meeting Clean Air Act requirements by eliminating the federal RFG oxygen standard. And it provides some marketplace certainty to farmers and ethanol producers that have acted responsibly to meet the demand created by current law.

Importantly, the RFS does not require that any renewable fuels be used in any particular area, allowing refiners to use these fuels in those areas where it is most cost-effective. Moreover, there are several provisions allowing the requirement to be adjusted or eliminated if supply problems occur. Small refiners are exempted from the RFS for several years, allowing those companies an easier transition to the program.

The RFS included in the Energy Policy Act of 2005 boosts the demand for renewable fuels such as ethanol and biodiesel to 5 billion gallons by 2012. An analysis conducted by the U.S. Department of Energy in 2003, "Infrastructure Requirements for an Expanded Fuel Ethanol Industry," concludes, "no major infrastructure barriers exist" to expanding the U.S. ethanol industry to 5 billion gallons per year.

As the industry has now grown to the point that it will produce more than 4 billion gallons of ethanol this year, DoE's conclusion has certainly been validated. Indeed, it should be obvious that the ethanol industry could supply a much greater volume of ethanol under an RFS. With crude oil prices recently topping $50 per barrel and gasoline prices across the country once again on the rise, consumers are seeking far greater production and use of domestic renewable fuels as a means of adding to supply and lowering prices. Consequently, we would hope that as the legislative process regarding the energy bill progresses, Congress will recognize the potential of U.S. ethanol companies to increase production and seek to maximize the volume of ethanol in the RFS.

Moreover, as the ethanol industry has had to dramatically increase production to respond to increased demand created by state MTBE legislation in the absence of federal action, it is clear that the proposed RFS schedule no longer provides a rational transition from the existing oxygen standard to an RFS. Thus, I would hope the Committee would consider an accelerated schedule as the legislative process moves forward.

Mr. Chairman, the Renewable Fuels Association is committed to working with you and members of the Committee as this process moves forward to finalize an energy bill that assures a reliable fuel supply, lowers consumer fuel costs, protects the environment and stimulates further growth and development in domestic renewable fuels such as ethanol and biodiesel.

Thank you.

Mr. HALL. Thank you very much. The Chair now recognizes Bob Slaughter, President of the National Petrochemical and Refiners Association, also not a stranger to this area. We will recognize you, Mr. Slaughter, for 5 minutes.

STATEMENT OF BOB SLAUGHTER

Mr. SLAUGHTER. Thank you, Chairman Hall, Chairman Barton, Congressman Boucher, and other members of the subcommittee. Thanks for allowing NPRA, again, to present its views on comprehensive energy legislation. As you know, our members include virtually all U.S. refiners, as well as most domestic petrochemical manufacturers.

First, thanks to this subcommittee, the full committee, and the entire House for approving H.R. 6, three times in the previous Congress. You've done the lion's share of the work in advancing a supply based national energy policy. NPRA believe that this year in this Congress there is an excellent chance that a comprehensive energy bill quite similar to Energy Policy Act of 2005 will become law.

The NPRA has the following specific recommendations regarding ways to ensure an abundant supply of transportation fuels and natural gas: repeal of the 2 percent RFG oxygenation requirement is needed to provide greater flexibility to refiners. Congress should make a clean break from overly prescriptive fuel policy by avoiding enactment of an ethanol mandate of MTBE ban. These intrusive actions add unnecessary costs and complications to the already difficult business of manufacturing gasoline in accordance with modern, environmentally sensitive fuel specification. Avoid prescriptive legislative action regarding boutique fuels, pending development of more accurate information on their cause, extent, and impact. The H.R. 6 Conference Report contained language ordering an EPA/

DOE study of this phenomenon, and that is the only appropriate action at this time.

Please take steps to increase domestic natural gas supply and to balance future gas supply and demand. It is time to review and curtail the practice of closing of promising areas on and offshore where production of domestic natural gas can proceed in an environmentally acceptable manner. The petrochemical industry, a $200 billion per year industry on which 150,000 good, American jobs depend, is one of many U.S. industries that rely on a secure, predictably priced supply of natural gas and its derivatives to do business in an increasingly competitive world market. Refiners are also significant users of natural gas. This means we need enhanced domestic production, plus LNG, plus Alaskan gas. We need them all and cannot afford to forego any of these crucial supply increments to maintain U.S. economic viability and environmental progress.

We also would like to suggest that this subcommittee consider having a hearing on the recently completed National Petroleum Council study of the refining industry. That report's summary is attached to my testimony, and it makes many important recommendations about policy changes need to keep the domestic refining industry running strong and producing the lion's share of critical products like gasoline, diesel, and home-heating oil, right here in the United States.

And last, but far from least, the NPRA urges you to include, once again, in this year's energy bill, the provision to provide limited liability protection for mandated fuel components MTBE and renewables. As you know, this provision affects only the defective products claim, leaving in place other traditional causes of action such as negligence and trespass. Those who are responsible for oxygen contamination of water remain explicitly liable for cleanup costs under this provision.

Refiners and petrochemical manufactures worked hard with the EPA and other stakeholders to make the RFG program established by the 1990 Clean Air Amendments a success. They invested billions of dollars to make RFG as required by the Act, including the mandatory 2 percent oxygen content that was originally opposed by a near-unanimous refining industry. I, personally, lobbied against that provision at the time, in favor of performance standards rather than an oxygenic mandate. Nevertheless, industry made that program a success when Congress acted and the final regulation were in place. Everyone knew then that MTBE would be the most widely used oxygenate in the new RFG program. The sponsor of the provision said so during debate on the floor of the other body. The EPA had approved MTBE for use in gasoline, twice modeled its proposed RFG regulations explicitly around MTBE use to reflect this fact, while without the RFG program would have been infeasible. No alternate oxygenate was available at the time in sufficient quantity and at economically viable costs to provide the large volumes needed in the vast RFG program, which eventually amounted to one-third of the Nation's gasoline supply. The U.S. refining industry spent approximately $47 billion in environmental expenditures in the last 2 decades and will spend about $20 billion in this decade to comply with new environmental requirements. Our members are committed to improving the Nation's air through compliance with EPA regulations which are usually quite prescriptive and challenging. The—in fact, the Clean Air Act would not be successful without the help and cooperation of industry and the implementation of new regulations. This is why the Energy Policy Act of 2005 should continue to provide as it does, a carefully tailored provision eliminating nuisance suits that seek to penalize the industry for complying with the clear intent of Congress in using MTBE, and EPA-approved gasoline component, to help clean the Nation's air.

Thank you again for the opportunity to appear here, and I look forward to your questions.

[The prepared statement of Bob Slaughter follows:]

PREPARED STATEMENT OF BOB SLAUGHTER, PRESIDENT, NPRA

Mr. Chairman and members of the subcommittee, thank you for the opportunity to appear before you today to discuss the need for a comprehensive U.S. energy policy. My name is Bob Slaughter, and I am President of NPRA, the National Petrochemical & Refiners Association.

NPRA is a national trade association with about 450 members who own or operate virtually all U.S. refining capacity, as well as petrochemical manufacturers who operate similar manufacturing processes. NPRA's refining members include large integrated refiners, large independent refiners, regional independents, and small refiners.

The refining and petrochemical industries produce clean transportation fuels to power today's sophisticated engines, provide a steady supply of home heating oil, and manufacture the basic building blocks of items that touch every aspect of our daily lives. The prospects for success in the refining and petrochemical industries are based upon the efficient, economic rearrangement of the links between hydrocarbon molecules. Our remarks today will concern links as well. There is a link between energy and economic strength for the United States; there is a link between energy and the continued development of innovation and discovery, and another link between energy and our national security.

These links are in some jeopardy today. Our energy policies do not reflect the importance of supply. For too long government actions, especially in the environmental area, have inadequately balanced energy supply impacts with other policy objectives.

NPRA supports the development and use of cleaner-burning fuels to meet health and environmental goals while maintaining adequate supplies to meet the demand of the motoring public and basic consumer. We believe that this can best be achieved if energy and environmental policymaking are integrated, and if the costs and benefits of new regulatory or legislative requirements are carefully analyzed and balanced so that any adverse impact on energy supplies is both assessed and mitigated. We urge caution in attempts to promote agriculture or social policy as part of this process. The politics of the moment often result in adoption of policies that run counter to overall national concerns and objectives.

With these thoughts in mind, NPRA sincerely appreciates the opportunity to address the subcommittee today and to present our views on the need for comprehensive energy legislation. Simply stated, NPRA supports policies that both encourage the production of an abundant supply of petroleum-based products for U.S. consumers and that promote a robust and diverse energy supply mix for all sectors.

I. ENERGY POLICY

In March of 2003, nearly two years ago, NPRA also had the privilege to appear before the Subcommittee on Energy and Air Quality concerning this same subject. In summarizing NPRA's energy policy recommendations at that time, we urged Congress to: repeal the 2% RFG oxygenation requirement; avoid a federal ban or mandatory phase-out of MTBE; resist calls for an ethanol mandate; extend product liability protection to MTBE and ethanol; avoid unnecessary changes in fuel specifications, including boutique fuels; take steps to increase natural gas production and supply; and ensure the continued viability of combined heat and power systems as the electricity industry transitions to a more competitive model.

NPRA urges you again today to enact comprehensive energy legislation that incorporates our proposals. We realize that the House of Representatives has acted boldly and with conviction in passing H.R. 6 on at least 3 separate occasions. Unfortunately, enactment of comprehensive energy legislation remains elusive. NPRA members hope that this subcommittee, the full committee and the House will again take the lead on this crucial legislative initiative by passing once again the fuels provisions of the H.R. 6 conference report, as currently proposed in the Energy Policy Act of 2005.

NPRA would like to review our specific recommendations in more detail:

A. Transportation Fuels

1. Repeal The 2% RFG Oxygenation Requirement, Fuel Producers Need More Flexibility

Repeal of the 2% by weight RFG oxygenation requirement [Clean Air Act section 211(k)] is key to provide refiners with more flexibility to meet supply and air quality requirements, and is the lynchpin for other much-needed modifications to the fuels provisions of the Act. Elimination of the 2% requirement will give refiners increased flexibility to deal with changing market conditions. It will also permit them to blend gasoline to meet the standards for reformulated gasoline more efficiently and economically, without mandated oxygenate content. NPRA also supports the petitions filed by the states of California and New York to waive the existing 2% RFG oxygenation requirement pending enactment of a federal repeal. We urge this subcommittee to monitor closely the EPA response to these petitions, which are long overdue for final approval.

2. Avoid Fuel Bans—They reduce supply.

NPRA remains concerned about proposals to ban MTBE nationally or to mandate a national phase-down of MTBE. MTBE elimination may cause a significant reduction in some gasoline volumes when fully implemented. (MTBE provides over 10% of RFG volume in many RFG areas.) NPRA is concerned about the possible impact of such policies on gasoline supply and manufacturing costs. The supply and demand balance in the nation's gasoline market is increasingly tight. Supply and price can be affected by weather, unforeseen outages, and accidents, resulting in economic losses and negative public reaction, and we are seeing this happen with increasing frequency. EIA predicted that an MTBE ban could raise the national average price of RFG in 2006 by several cents per gallon and reduce supply. ("Supply Impacts of an MTBE Ban," EIA, September 2002) Recent experience in the gasoline market suggests that such significant changes should be made only with an abundance of caution, and with full disclosure to the public regarding any possible supply and cost impacts. At a minimum, prudence requires much deliberation and thought before acting to reduce gasoline supplies.

EIA noted in a presentation in October 2003: "MTBE is a very clean component from an air emission standpoint. It contains oxygen and has no sulfur, no aromatics, no olefins and an RVP that is very close to the RVP of the remaining gasoline components." The author also wrote: "What is not appreciated by many people outside of the petroleum business, is that losing MTBE is more than just losing the volumes of this blending component... no other hydrocarbon or oxygenate equals the emission and engine performance characteristics of MTBE. Hence, losing a barrel of MTBE results in losing more than a barrel of gasoline production. When you remove a clean, high performance gasoline stream from the gasoline pool, it is difficult to find material to replace its volume and quality contributions." (EIA, J. Shore, "Supply Impact of Losing MTBE & Using Ethanol," October 2002, pp. 10, 12)

Recent EIA studies confirm that elimination of MTBE could also affect many refiners' abilities to comply with the Mobile Source Air Toxics (MSAT) rule, which requires refiners to maintain their average 1998-2000 gasoline toxic emission performance levels. The result might be that some refineries would have to reduce their production of RFG to achieve compliance. Exacerbating the MSAT problem is EPA's recent announcement that it will propose revisions to the MSAT rules that will further alter gasoline composition and emissions.

3. Resist Calls for an Ethanol Mandate—Avoid Added Cost and Complications

Many NPRA members already use large volumes of ethanol, and they expect to increase their ethanol usage in the years ahead. EIA and other policy analysts also predict a significant increase in ethanol markets in coming years, without a mandate. Thus, given the relative scarcity of quality gasoline blend stocks, ethanol has a bright future without any need to resort to the dubious policy of a national ethanol mandate.

As a state that is at the forefront of fuel specifications, California has experienced and continues to experience problems with bans and mandates. According to the California Energy Commission (CEC), the state substantially overestimated the cost of addressing the perceived MTBE water problem ($1.5 billion vs. $200 million), while it substantially underestimated the costs of replacing MTBE with ethanol in gasoline ($400 million vs. $1.6 billion).

Further, a September 2004 study from the California Air Resources Board and the Auto industry confirms that the permeation effects from ethanol blended fuels are 65% greater than from fuels with MTBE. For California, this translates into significant additional VOC emissions to the atmosphere.

Refiners have worked with ethanol suppliers and other stakeholders to achieve a transition to ethanol use as smoothly as possible given the magnitude of the RFG markets in California, New York and Connecticut. NPRA views ethanol as a valuable gasoline blendstock, and we are certain that significant quantities of the product—quantities much larger than today's record use—will be required to meet the ever-increasing demand of the motoring public in the years to come. This means that a mandate will only increase the cost of material that would have been used in any case. NPRA requests that economic and environmental considerations be allowed to dictate the quantity and geographic location of ethanol's use. Mandates (and bans) are inefficient and costly mechanisms that only serve to distort true marketplace dynamics and inhibit innovation. NPRA urges the committee to make a clean break with the market intervention theory typified by both the existing 2% requirement and calls for an ethanol mandate to replace it.

4. Support Limited Liability Protection for Mandated Fuel Components

The Energy Policy Act of 2005 contains a narrow provision that (1) would disallow suits against the manufacturer of fuel containing MTBE or a renewable fuel, (2) only on a claim that the product is defective, (3) if that product is made and used as intended and as approved by EPA.

This provision preserves other causes of action, such as negligence, trespass, breach of warranty, breach of contract, and public nuisance. The provision does not affect liability under federal and state environment laws and therefore would not affect a responsible party's obligation for response, remediation, and clean up.

The Act includes the same limited liability provision for both MTBE and renewable fuels.

This provision merely provides fair treatment. In 1990, Congress established the Reformulated Gasoline (RFG) program mandating the use of oxygenates in gasoline in cities with the worst U.S. air quality. The authors of the bill acknowledged on the floor of the House and Senate that fuel manufacturers would have to use significant volumes of MTBE to comply with this federal requirement. EPA also approved the use of MTBE as a fuel additive.

Despite this compelling evidence of the intent of Congress and the approval of the key regulatory agency, some manufacturers are now being sued just because they use MTBE as an additive in gasoline. Yet this use is exactly what Congress mandated some 14 years ago and EPA approved.

The provision disallows only a defective product claim. Under a defective product claim, a defendant can be found liable simply by making a product for sale, even if he exercised proper care. Thus, by adding a defective product count to a lawsuit, the plaintiff can bypass all the usual legal requirements to establish wrongdoing.

The limited liability provision only affects manufacturer liability under this extraordinary defective product claim. It says suppliers cannot be sued under a defective product claim for simply transporting, distributing, or selling gasoline containing MTBE or a renewable fuel, just as intended by Congress and approved by EPA.

Many legal causes of action remain available if gasoline with MTBE or ethanol is mismanaged. For example, if any such gasoline is spilled or leaked, those responsible remain liable for legal action under classic tort theories such as negligence, trespass, breach of warranty, breach of contract, and public nuisance.

Elimination of the defective product claim will not affect cleanup. In fact, litigation is the least effective way to achieve groundwater cleanup. The vast majority of cleanups are initiated with no a need for litigation. Further, the Act provides an additional $800 million to clean up of leaks and spills of fuel containing MTBE or ethanol in those few cases in which responsible parties cannot be identified.

Once again, the Energy Policy Act's fuel additive limited liability provision simply removes a cause of action that results in a suit against manufacturers for doing properly exactly what Congress intended them to do. It is based on fundamental fairness and common sense.

5. Avoid Unnecessary Changes in Fuel Specifications

The refining industry faces significant investment requirements—on the order of $20 billion this decade—to comply with regulations to improve the environmental performance of both gasoline and diesel fuel in coming years. Significant additional investments will also be required to respond to regulations affecting facilities. NPRA urges the subcommittee and committee to avoid any additional fuel specification changes while work is in progress to comply with the existing requirements. Particular care should be used in responding to calls to address "boutique fuel" gasoline programs. In many cases these programs represent a local area's attempt to address its own air quality needs in a more cost-effective way than with reformulated gasoline. NPRA welcomes further study of the "boutique fuels" phenomenon, but urges members of the committee to resist imposition of boutique fuels limitations. The practical effect of regulating boutique fuels is to deny state and local governments a way to meet stringent environmental requirements in the most cost effective manner.

The Boutique Fuels provisions in the Act stipulate that EPA and DOE perform a comprehensive analysis of the impact of state requests for specialized fuels on (1) air quality, (2) the overall number of boutique fuels, and (3) fuel availability and cost. The bill also requires recommended legislative changes to be submitted to Congress within 18 months.

NPRA believes the Act's language to be a prudent approach. U.S. gasoline and diesel fuel specifications are currently undergoing substantial modifications as a result of several regulatory programs, as well as other changes that will result with final enactment of the Energy Policy Act of 2005. These new programs, including repeal of the 2% oxygenate requirement, will effectively address the boutique fuels issue.

B. Balancing Natural Gas Supply and Demand

America's standard of living and overall economic health are closely linked to the need for adequate supplies of energy at reasonable prices. Our nation currently faces severe challenges as it strives to balance ever-increasing energy demands from all consuming sectors, largely due to contradictory and short-sighted policies that have limited supply of many forms of energy. This is especially the case with domestic natural gas production. Our national policy actually discourages domestic gas production while encouraging increased U.S. consumption!

In recent years, domestic demand for natural gas has substantially increased, while production has recently decreased. Our experience with volatile natural gas prices and short supplies over the last several winters was a reality check for the nation's flawed policies, and we must act now to correct that situation. Government, industry, and other private experts agree that natural gas demand is expected to rise by the year 2020 by as much as 60% over today's levels. But it is still unclear whether and to what extent domestic gas production will be allowed to increase to satisfy as much as possible of this new demand from U.S. sources.

Current policies discourage U.S. gas production and supply in several ways. But two aspects are most significant. Federal policy has:

- limited access to federal lands and thus reduced the number of places where gas may be produced, while at the same time encouraging more gas use as a cleaner burning fuel; and it has
- imposed restrictive regulations that discourage investment in pipelines needed to bring new gas to market;

There is, on the other hand, some good news. The U.S. Geological Survey estimates that the U.S. has 1,400 trillion cubic feet of technically recoverable natural gas resources. Thus, the U.S. is not running out of gas; it is just running out of places where industry is allowed to look for it. **Further and NPRA believes most telling, the U.S. is the only developed country that prohibits much off-shore exploration and development of natural gas.** U.S. energy policy should encourage greater access and development opportunities on onshore public lands as well as those on the Outer Continental Shelf. New and promising domestic areas for development must also be open for exploration and production. An Alaskan natural gas pipeline should be built to tap more gas and transport it to the lower 48 states as soon as economically feasible.

For all these reasons, NPRA urges this Committee and the Resources Committee to review the natural gas situation. NPRA recommends that particular attention be paid to the following:

- Timely issuance of leases and permits—DOI has indicated that over 1,000 various stipulations impede resource development on federal lands. Federal agencies should be required to update resource management plans and to process environmental reviews of proposed natural gas pipelines and drilling programs in a timely, efficient manner.
- Federal lands should be leased for multi-purpose uses, including natural resource production and required infrastructure improvements—All too often and espe-

cially in the Rocky Mountain region, these lands are systematically placed off-limits for development through unnecessary and increasingly stringent restrictions.

- The Energy Policy & Conservation Act (EPCA) of 2000 should mandate a second phase that would promote additional onshore leasing—Issued in 2003, the Phase I study identified and assessed resource estimates and outlined the impediments to development in five onshore basins. Congress should require a Phase II project that will investigate the post-sale impediments to development of the areas/resources.

There is also a problem on the demand side of the equation. For too long, the impact of environmental legislation and/or regulations on natural gas supply have had little or no consideration when these policies are developed. This has resulted in programs which encourage increased gas use—mostly in the generation of both base and peak-load electricity—because of its environmental benefits. This has led to (and will most likely continue to exacerbate) higher gas prices and volatility. In fact, EIA reports that demand by electricity generators is expected to account for 30% of total natural gas consumption in 2025. This equates to a doubling of gas use by the utility sector over current demand. If present policies continue, it is clear that adequate supplies will not be available to accommodate this demand figure unless current natural gas users in core industries are forced to switch fuels, close, or relocate operations to a more favorable supply situation outside of the U.S. In the process, we will lose billions of dollars in economic benefit to the U.S. economy along with many thousands of well-paying jobs.

The domestic petrochemical industry relies upon natural gas and natural gas liquids as feedstocks. About 70% of U.S. petrochemical manufacturers use natural gas liquids as feedstocks. In contrast, about 70% of petrochemical producers in Western Europe and Asia use naphtha an oil product, as a feedstock.

The U.S. has generally maintained a reasonable-cost feedstock position relative to its competitors in Europe and Asia. However, that situation has eroded as the price of natural gas has increased due to supply concerns. North American natural gas and natural gas liquids prices have risen and placed a significant portion of the domestic petrochemical industry at a disadvantage to European and Asian producers. The Middle East countries are attracting many new petrochemical plants because their gas supplies are vast and very cheap in comparison with the U.S.

Chemical product exports are usually significant contributors to U.S. trade receipts. Unfortunately, natural gas supply concerns have impacted the already depressed chemical export market, resulting in a negative trade balance in recent years. This negative trade balance allows foreign businesses to capture U.S. market share, in part because European and Asian producers are not experiencing similarly increased feedstock prices and supply concerns.

Based on the above, we recommend the following demand-side policy options be adopted:

- Provide appropriate incentives for facilities with dual fuel capability to switch from gas to more abundant fuels, especially when supply concerns exist.
- Federal, state and local governments should encourage electric utilities and industrial facilities to use fuels other than natural gas during the current shortage where this can be done without negative impacts on air quality.
- Provide sufficient funds for the increased use of clean coal technology, more nuclear and hydro-power generation, and other forms of energy used to generate electricity. This will displace gas supplies for use as feedstock and home heating.
- Electricity generating units which use natural gas as a primary fuel should be dispatched based on fuel efficiency. Fixed cost components of existing units should be secondary relative to fuel efficiency. Emergency plans, including temporary air quality exemptions or waivers, should be developed by FERC, DOE and EPA when supplies of preferred fuels become inadequate.
- Review environmental regulations or enforcement actions which require the use of natural gas to achieve air quality standards. A primary example is EPA's action to require refiners and other manufacturers to switch to natural gas with no attention to the impact on total gas supply.
- Codify Executive Order # 13211, which requires a statement of energy impacts when undertaking certain federal/regulatory actions. These include potential impacts on energy supply, distribution, or use.
- Review public policy initiatives such as fuel mandates and global climate change proposals that have the potential to impact natural gas supplies because they may encourage even greater reliance on natural gas to generate electricity.

II. THE U.S. REFINING INDUSTRY

Before addressing the current state of the U.S. refining industry, NPRA wants to reaffirm its commitment to the orderly production and use of cleaner-burning fuels to address health and environmental concerns, while at the same time maintaining the flow of adequate and affordable gasoline and diesel supplies to the consuming public. Our cleaner fuels and facilities will greatly benefit the environment.

For example, according to EPA, the new Tier II low sulfur gasoline program, initiated in January 2004, will have the same effect as removing 164 million cars from the road when fully implemented. Since 1970, clean fuels and clean vehicles account for about 70% of all U.S. emission reductions from all sources, according to EPA. Over the past 10 years, U.S. refiners have invested about $47 billion in environmental improvements, much of that to make cleaner fuels.

In order to fully appreciate the impact of environmental regulations on fuel supply, we should first consider the dynamics of current gasoline markets. It is important to begin with the most significant factor affecting gasoline prices: crude oil. The cost of crude oil represents about 45% of the total cost of a finished gallon of gasoline. Crude oil prices have increased nearly 67% since April 2003, once having crossed the $50 per barrel threshold. High demand for crude from Asia and the U.S., plus OPEC activities to restrain crude production in recent years, are the most important factors affecting crude prices.

The other key factor underlying current gasoline market conditions is the tight supply/demand balance. This is due to steadily increasing gasoline demand (growing population, Americans drive larger vehicles greater distances) and the meager growth in refining capacity in the United States. Due to U.S. economic recovery, the U.S. Energy Information Administration (EIA) estimates that growth in our already significant gasoline demand averages 1.7%. Gasoline demand currently amounts to approximately 9 million barrels per day. Domestic refineries produce about 90 percent of U.S. gasoline supply, while 10 percent is imported. Therefore, growing demand can only be met by either increasing domestic refinery production or by relying on more foreign gasoline imports.

A. Domestic Refining Capacity Should Increase To Help Meet the Growing Demand for Fuel

Domestic refining capacity is a scarce asset. There are currently 149 U.S. refineries owned by almost 60 companies in 33 states. Their capacity is roughly 16.8 million barrels per day. In 1981, there were 321 refineries in the U.S. with a capacity of 18.6 million barrels per day. No new refinery has been built in the United States since 1976, and it is unlikely that one will be built here in the foreseeable future, due to economic, public policy and political considerations, including siting costs, environmental requirements, rate of return and, most importantly, "not in my backyard" (NIMBY) public attitudes.

U.S. refining capacity has increased slightly in recent years, but it has become increasingly difficult to keep pace with the growth in demand for petroleum products. New refineries have not been built, but refiners have increased capacity at existing sites to offset the impact of capacity lost elsewhere due to refinery closures. It has now become harder to add capacity at existing sites due in part to more stringent environmental regulations. Proposed capacity expansions can often become difficult and contentious at the state and local level, even when necessary to produce cleaner fuels pursuant to regulatory requirements. We hope that policymakers will recognize the importance of domestic refining capacity expansions to the success of the nation's environmental policies, and help inform the public of the need for these facility improvements.

Domestic refiners do not produce all of the transportation fuels needed to meet the demand of the nation's consumers. On average, about 10% of the demand volume is imported, either as finished product or as blending components that can be added to the gasoline and diesel pool. The current level of U.S. refinery capacity, resulting from lack of new construction but with some expansion at existing facilities, will result in a need to import ever-increasing volumes of transportation fuels from foreign refineries.

B. The National Petroleum Council Refinery Study Recommendations

With these circumstances as a backdrop, the Secretary of Energy, in June 2004, requested that the National Petroleum Council (NPC) a key advisory group, provide advice on issues surrounding domestic refining capacity, product imports, and inventories. The Secretary requested that the Council's advice be provided on an expedited schedule and a final report was presented to the Secretary in December 2004. NPRA was one participant among many in the study group.

The NPC review of refining and inventory issues presents observations on petroleum product supply and a response to the Secretary's request for advice on both refining and inventory issues. It is intended to update the 1998 and 2000 NPC reports on these subjects. The report provides insights on petroleum market dynamics, as well as advice on actions that can be taken by industry and government to ensure adequate and reliable supplies of petroleum products to meet the energy and environmental requirements of American consumers. The report recommends actions that, if implemented, would:

- help avoid policies that hinder refining capacity expansions;
- improve the environment for investment in domestic refining and logistics capability; and
- allow the current supply system to continue to operate efficiently.

More specifically, the NPC study focused on precise topics of immediate impact and concern to the refining industry and recommended appropriate actions that should be taken to ameliorate current and potential problems. These topics and associated recommendations include:

New Source Review

"Immediate implementation of comprehensive NSR reform is a very important policy step needed to improve the climate for investment in domestic refinery expansion. The NSR reforms promulgated by the Administration, including the Equipment Replacement Rule currently under judicial review, should be implemented as soon as possible. Attempts to delay or overturn the reforms should be vigorously opposed. Additional NSR reform proposals regarding de-bottlenecking and product aggregation should be issued and finalized."

National Ambient Air Quality Standards

"The U.S. Environmental Protection Agency (EPA) should revise the NAAQS compliance deadlines and procedures to take full advantage of emissions reduction benefits from current regulatory programs such as cleaner fuels/engines and reduction of regional emissions transport. As currently structured, attainment deadlines precede the benefits that will be achieved from emissions reductions already planned... The current deadlines could result in:

- Requirements for additional emissions offsets for any refinery modifications, reducing the economic attractiveness of investment in refinery capacity expansion
- Additional investment in stationary controls at refineries, reducing the overall profitability and viability of domestic refining versus imports
- Additional requirements for boutique fuels..."

Implementation of Ultra Low Sulfur Diesel (ULSD) Regulations"... there are concerns about meeting Ultra Low Sulfur Diesel (ULSD) demand during the transition to the 15 ppm maximum sulfur specification beginning in mid-2006...

To reduce the potential for supply disruption, EPA should work with the Department of Energy (DOE) and the various fuels supply industries to consider emerging information about the behavior of ULSD moving through the entire distribution system and to consider how to achieve the goals of the program while recognizing distribution system realities. EPA's current testing tolerance for ULSD should be adjusted to reflect the reproducibility of the tests that will be available for regulatory compliance; otherwise, enforcement actions based on testing inaccuracy may result in disruption to the supply system."

National Energy Legislation

"The NPC recommends passage of national energy legislation as embodied in the 108th Congress report on HR. 6 as the vehicle with the highest probability of obtaining prompt action on the reformulated gasoline (RFG) oxygenate, oxygenate liability and boutique fuels issues...

- **Oxygenate Liability.** Congress should enact limited liability protection against defective product claims involving methyl tertiary butyl ether (MTBE) and other federally required additives. This action would eliminate only defective product claims that penalize fuel manufacturers for meeting the Clean Air Act requirements. Negligence and other traditional causes of actions for MTBE cleanup would be unaffected.
- **Boutique Fuels.** Requests for specialty fuels formulations, whether driven by NAAQS or other wise, should be approved only where such programs are necessary and cost-effective relative to other emissions reduction options... Repeal of the 2% oxygenation requirement for RFG could eliminate much of the incentive for boutique fuel proliferation... DOE and EPA should conduct a joint study of the boutique fuel issue, with participation by the stakeholders—This

study should provide important information on the impact of boutique fuels on fuel production and distribution."

Sound Science, Cost Effectiveness, and Energy Analysis

"The 2000 NPC refining report recommended that: 'Regulations should be based on sound science and thorough analysis of cost effectiveness.'

Executive Order 13211, signed by President Bush in 2001, requires agencies to prepare a 'Statement of Energy Effects' including impacts on energy supply, distribution and use, when undertaking regulatory actions. The NPC recommends that Executive Order 13211 be made law and strictly enforced. The NPC is not suggesting elimination or rollback of environmental requirements, but rather that the cost analysis of proposed regulations should include a thorough analysis of energy supply effects from production to end-use. Examples of regulations that the NPC does not believe reflect a thorough analysis of the energy supply effects include ULSD and NAAQS regulations. As a result, implementation of these regulations may impose unintended costs without commensurate benefit..."

Permitting

Streamlining the permitting process would help improve the environment for domestic refining capacity investment...(A)ctivities...to review the processes and identify streamlining opportunities should include industry and other stakeholders. Streamlining should provide for expeditious overall review and a clearly defined process for obtaining a permit, with agency roles and responsibilities well-defined and specific deadlines for making permit decisions."

Depreciation Schedule Adjustment

"Adjusting the depreciation schedule for all refining equipment to five years from the current ten years, consistent with the treatment of similar process equipment in other manufacturing industries, would have a positive impact on expansion investment economics...helping to offset the historically low returns in the refining/marketing business that have hindered investment in capacity expansion...The depreciation adjustment should be applied to all new domestic refining investment...The depreciation schedules for petroleum pipelines and storage facilities should be similarly roduced."

Fuel Waivers and Enforcement Discretion

"Use of exemptions, exceptions and waivers should be limited to serious supply disruptions that affect end users' ability to obtain petroleum products...Proposed guidance on waivers has been recently released by EPA as a first step in this process..."

Alternative Fuels

"Mandates or subsidies for alternative fuels increase uncertainty and reduce the incentive for investment in additional domestic petroleum refining capacity. Therefore, these mandates and subsidies may not reduce petroleum product imports as intended and could increase the cost to consumers."

Distillation and Driveability Index

"The 2002 NPC refining report recommended that the Driveability Index not be changed without thoroughgoing additional analysis. To date, EPA has resisted automakers' calls for a reduction in Driveability Index, or a change to Distillation Index (Driveability Index plus an ethanol adjustment). EPA should continue this position. A reduction in Driveability or a change to Distillation Index could result in a significant reduction in domestic refinery gasoline producibility."

Site Security

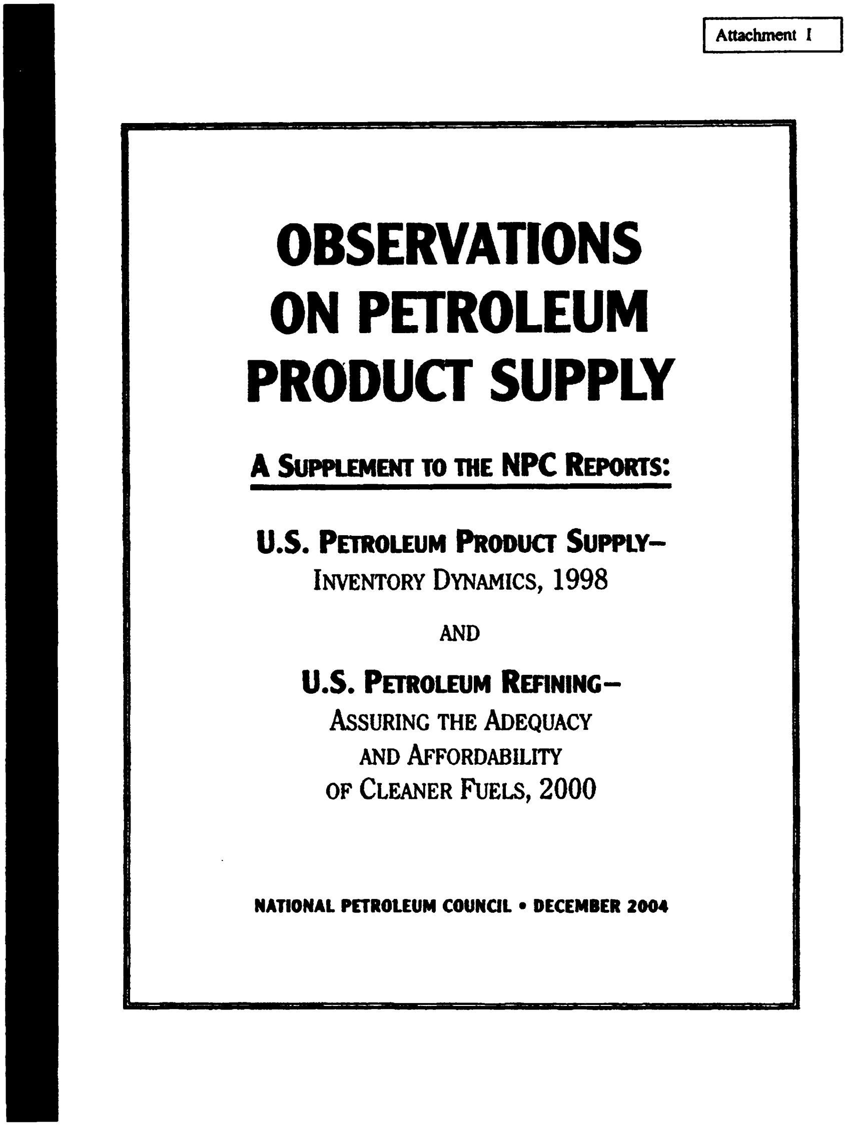
"Site security enhancement should remain an industry responsibility with ongoing risk assessment coordinated with the Department of Homeland Security, which should retain the lead federal coordination role. Refining industry participants are committed to keeping their facilities secure from threats of violence and terrorism. Refiners have expended substantial resources to enhance security and expect to continue to do so. There are proposals being discussed to include provisions for refining technology changes and criminal liability. In the opinion of the NPC, these provisions do not provide an additional security benefit but have the potential to negatively impact light product production capability."

In addition, the 2004 report re-emphasized the need to implement the recommendations of the NPC 2000 refining study. **NPRA, both as a participant in the study and whose members are directly impacted by these and other issues, firmly endorses these findings and recommendations and urges Congress to play an instrumental role in assuring their adoption and im-**

plementation. We ask that this subcommittee hold a hearing on the NPC studies at the earliest possible opportunity. We are attaching a copy of the Executive Summary of the study to this testimony.

Summary

In conclusion, NPRA would like to stress that energy is a strategic commodity. The world measures a nation by its economic health, its national security, its quality of life, and its ability to develop and implement new ideas. Our nation is at a point where its future capabilities may very well rest on a stable supply of fuels and other forms of energy at reasonable prices. To succeed, we and other energy suppliers must have the support of the American people. This is a link that must be forged. All Americans want and expect clean air and pure water, but we also want to fuel our industries, heat our homes and compete successfully in an ever-demanding international marketplace. NPRA is certain that by working with Congress to enact both fair and far-reaching comprehensive energy legislation, we can begin this process in earnest. And enactment of the fuels provisions in the Energy Policy Act of 2005 is a good place to start.



Attachment I

OBSERVATIONS ON PETROLEUM PRODUCT SUPPLY

A SUPPLEMENT TO THE NPC REPORTS:

U.S. PETROLEUM PRODUCT SUPPLY–
INVENTORY DYNAMICS, 1998

AND

U.S. PETROLEUM REFINING–
ASSURING THE ADEQUACY
AND AFFORDABILITY
OF CLEANER FUELS, 2000

NATIONAL PETROLEUM COUNCIL • DECEMBER 2004

EXECUTIVE SUMMARY OF FINDINGS AND RECOMMENDATIONS

This supplemental report focuses on major light petroleum product (gasoline, jet fuel, heating oil, and diesel) supply and petroleum inventories in the United States. It is important to understand this market in the context of the larger flexible and responsive global petroleum market. Delivery of petroleum products to the consumer involves multiple separate activities, including refining, transportation, and storage of petroleum. Many different competitors participate in this supply chain. Some are integrated throughout the chain while others specialize only in certain segments. Competition in the global marketplace drives adoption of efficient strategies, including those related to inventory management and refining optimization.

In the near term, the NPC does not foresee significant hurdles to the availability of gasoline and heating oil supplies to meet consumer demand. However, there are concerns about meeting Ultra Low Sulfur Diesel (ULSD) demand during the transition to the 15 ppm maximum sulfur specification beginning in mid-2006.

The demand for light products in the United States is expected to continue to grow. Demand will be met with a combination of domestic production and imports. Imports have been growing for the last several years, and imports are expected to continue to be an economic component of U.S. supply. The amount of future demand growth supplied from domestic refineries will be dependent on several factors, including domestic investment decisions by individual companies. This report includes recommendations for government actions that would avoid impeding domestic refining capacity growth and improve the investment climate for domestic refining.

Companies continually strive to economically optimize their operations while reliably meeting consumer demand. Inventories are an integral part of the supply system and act as an interface between the various segments of the supply chain. The competitive nature of the industry drives companies to minimize working capital, of which inventory is a component, while ensuring reliable supply systems. Ultimately, consumers benefit from efforts to reduce petroleum supply costs.

The petroleum markets respond to supply/demand changes with price movements that provide the incentive to increase or decrease supply to correct any imbalance. This is an integral part of normal and effective market operation. Through the individual responses of various companies to these price movements, the petroleum industry as a whole reacts quickly and effectively to maintain the supply and demand balance in response to changes in local, regional, or global market conditions. Although the U.S. supply system is very complex, it is robust and has the flexibility to adjust to supply disturbances. Even major supply disturbances are typically rebalanced within a short period of time. Market mechanisms provide the fastest and most efficient response to supply disturbances.

Refining Capacity and Import Availability Findings

Capacity Growth

U.S. refining capacity has grown since the 2000 NPC refining study, but the rate of U.S. refining capacity growth has slowed in recent years. Domestic light product production has not kept pace with demand growth. Some of the factors that impede domestic capacity growth include:

- Investment economics, reflecting historical refining and marketing returns that are lower than other segments of the oil business and lower than the average of the S&P 500 companies
- An uncertain regulatory environment, resulting from issues such as New Source Review (NSR) enforcement, National Ambient Air Quality Standards (NAAQS) implementation schedules, and lack of a defined mechanism for the granting of waivers
- Resources used for regulatory-driven refinery projects.

The NPC expects that increases in domestic production will come from continued expansion of existing refineries, because expansion at existing sites is generally more economic than new refinery construction. Even the very recent improvement in refinery profitability does not appear to be sufficient to create an economic environment conducive to building new grassroots refineries. Recent increases in gasoline imports suggest that the economic and regulatory climate for investment in domestic refining capacity has not supported capacity expansion and utilization equal to the growth in gasoline demand.

Product imports are expected to continue to be an economic component of U.S. supply. The volume of imports in the future will depend upon a number of factors, including domestic demand growth and domestic refining capacity growth, as well as supply/demand factors outside the United States that affect the economics of imports versus domestic refining.

Emissions reductions and an improved environment benefit society in many ways. As they have in the past, U.S. refining industry participants expect to continue to devote significant resources to environmental improvement, including cleaner fuels production and reduction of emissions from stationary sources. However, the magnitude and uncertainty of environmental requirements and their enforcement increases cost and adversely affects domestic refinery investment. Foreign competitors that are not subject to these additional costs and uncertainties may have a competitive advantage, resulting in reduced domestic capacity growth.

Ultra Low Sulfur Diesel

The NPC believes that the transition period for ULSD is likely to be more difficult and longer than historically associated with major product specification changes. This is due to the difficulty anticipated in maintaining and assuring the specified sulfur level and needed volumes during distribution from refineries to the ultimate consumer. Enforcement of the 15 ppm maximum sulfur retail cap without an adequate tolerance for test reproducibility could result in large quantities of diesel being disqualified as ULSD for supply to consumers. In addition, pipeline companies could set a very low sulfur requirement at the refinery gate because of contamination concerns in the distribution system, which would reduce refinery production capability. It is uncertain whether domestic refinery production will be of sufficient volume and low enough sulfur content to overcome anticipated distribution issues. The NPC does not expect that imports of ULSD will be widely available to make up for the downgrade during distribution or reduced refinery production. Consequently, there is the potential for significant supply disruptions.

Inventory Findings

Inventory Trends

Crude oil inventory has continued the slow downward trend noted in the 1998 study. This trend, which is likely to continue, is attributed to delivery system efficiency improvements and declining domestic crude oil production. With declining domestic production, imports have increased. However, imports in transit are not counted in U.S. inventory data.

The long, slow decline of gasoline inventory primarily associated with finished gasoline inventory at terminals that was observed in the 1998 inventory study is no longer apparent. Distillate (heating oil and diesel) inventory has remained essentially flat through both the previous and current study periods. The NPC believes further efficiencies have taken place allowing for lower inventory levels, but these efficiencies have been offset by increases in product demand and the number of different fuel specifications, which have increased the need for inventories.

Lower Operational Inventory

As discussed in the 1998 NPC inventory study, U.S. petroleum inventories respond to both market and infrastructure changes in the supply system. A significant part of petroleum inventory is required to operate the product and crude supply systems and is not readily available to meet demand. In the 1998 study, the NPC redefined these inventories as "lower operational inventory" (LOI). The NPC defined LOI as the lower end of the demonstrated operating inventory range updated for known and definable changes in the petroleum delivery system. The LOI was introduced in the 1998 study in order to move away from the concept that there is some definable inventory level where supply system reliability becomes of greater concern. While generally not used by industry, the NPC recognizes LOI as a gauge to help the government assess current inventory levels.

Based on the observed crude oil inventory trends, the NPC concludes that the crude oil LOI should be a range of 260 to 270 million barrels, compared to the 1998 study conclusion of 270 million barrels. Since the 1998 study, crude oil inventory has been as low as 260 million barrels with no impact on crude oil supply to U.S. refineries. However, in September 2004, Hurricane Ivan had a significant impact on offshore oil platforms, pipeline movements, and oil imports. This created localized supply disruptions at a few refineries even though crude oil inventories were slightly above 270 million barrels. This reinforces the concept that the LOI is only one indicator of adequacy of supply and therefore a crude oil LOI range is recommended, rather than a single value, to better represent the degree of accuracy associated with the LOI methodology.

No change is appropriate at this time in the LOIs for gasoline or distillate fuel oil. Given the short time frame of this study, the potential impact of regulatory changes in diesel sulfur content on distillate inventory was not studied.

Price Volatility

Global crude oil prices continue to be the primary driver of product price levels. Even though the number and magnitude of product price up-ticks (increases of greater than 10% or more versus prior year period) has increased since 1997, most of these events were driven by events in the global crude oil market. Retail price changes continue to lag behind spot price changes, which has the effect of dampening and delaying price swings at the retail level.

Product and crude oil price levels and volatility have increased since the previous study, which focused on a time period of relative calm in oil markets (1992-1997). In the 1998 to 2004 time period, crude oil price volatility peaked in 1998, while gasoline price volatility peaked in early 2002. What has occurred since 2002 is an upward movement in product prices in line with an upward movement in global crude oil prices. Retail gasoline prices, however, have been observed to be less volatile than crude oil prices.

These conclusions are based on analysis of U.S. national data. Consumers at a local level may be subject to more or less volatility than the national average as a result of local factors that are not captured by this analysis.

Relationship of Inventories to Price

As addressed in the 1998 NPC inventory study, the expectation that inventories influence prices is based on the economic assumption that prices reflect the current supply/demand balance and that inventories provide a measure – however imperfect – of the changing balance between supply and demand. Inventories are a result of supply and demand fundamentals. Any factor that serves as a measure of the short-term supply/demand balance would be expected to influence prices.

Statistical analysis of the simple relationship between inventories and prices finds only a modest correlation. This conclusion is indicative of the fact that the interaction of inventories and prices is complex. Inventories are an imperfect measure of the supply/demand balance, and prices for crude oil and petroleum products are influenced by many other factors in addition to inventories. When petroleum inventory data are made public, it can potentially have a short-lived effect on petroleum prices, including futures prices. This appears particularly true when the inventory data deviate from market expectations.

Strategic Petroleum Reserve

The United States' Strategic Petroleum Reserve is the largest government crude oil stockpile in the world. The NPC remains strongly supportive of holding these inventories, but they should only be used during significant crude oil supply disruptions that threaten the system's ability to meet domestic demand.

While it is recognized that there is a strategic heating oil reserve in the Northeast, the concept of a products strategic reserve was discussed as part of this supplemental report and the NPC does not believe such reserves are appropriate for the United States.

Recommendations

The NPC provides the following recommendations to help ensure a reliable supply of light petroleum products to the U.S. consumer. These recommendations are aimed at avoiding hindrance of refining capacity expansion, improving the environment for investment in domestic refining and logistics capability, and allowing the current supply system to continue to operate efficiently. Allowing the market to work efficiently will benefit the customer as the market provides the fastest and most efficient response to supply disturbances.

The recommendations of the 2000 NPC refining study remain applicable and should be implemented. A summary of those recommendations and the current status are included in Appendix C.

New Source Review

Immediate implementation of comprehensive NSR reform is a very important policy step needed to improve the climate for investment in domestic refinery expansion. The NSR reforms promulgated by the Administration, including the Equipment Replacement Rule currently under judicial review, should be implemented as soon as possible. Attempts to delay or overturn the reforms should be vigorously opposed. Additional NSR reform proposals regarding de-bottlenecking and project aggregation should be issued and finalized.

National Ambient Air Quality Standards

The U.S. Environmental Protection Agency (EPA) should revise the NAAQS compliance deadlines and procedures to take full advantage of emissions reduction benefits from current regulatory programs such as cleaner fuels/engines and reduction of regional emissions transport. As currently structured, attainment deadlines precede the benefits that will be achieved from emissions reductions already planned. Thus, even though programs are already being implemented to provide emissions benefits, states with non-attainment areas will be required to pursue additional costly controls that might otherwise not be needed and might not be deliverable in the time frame currently required.

The current deadlines could result in:

- Requirements for additional emissions offsets for any refinery modifications, reducing the economic attractiveness of investment in refinery capacity expansion
- Additional investment in stationary source controls at refineries, reducing the overall profitability and viability of domestic refining versus imports
- Additional requirements for boutique fuels, reducing the efficiency of the distribution system and increasing the potential for supply disruptions.

These requirements would be disincentives to expansion of domestic refining capacity. If the states were given sufficient time to allow emissions benefits of clean fuels/engine programs and regional transport regulations to be considered in attainment demonstrations, the adverse impact of these regulations on domestic refining capacity would be greatly reduced.

Implementation of Ultra Low Sulfur Diesel Regulations

Although the timing and specification level of the ULSD regulations do not follow the NPC's 2000 recommendations, the timing requirement has been finalized and should not be changed this close to the implementation date, since refiners are already making investments to comply.

To reduce the potential for supply disruptions, EPA should work with the Department of Energy (DOE) and the various fuel supply industries to consider emerging information about the behavior of ULSD moving through the entire distribution system and to consider how to achieve the goals of the program while recognizing distribution system realities.

EPA's current testing tolerance for ULSD should be adjusted to reflect the reproducibility of the tests that will be available for regulatory compliance; otherwise, enforcement actions based on testing inaccuracy may result in disruption to the supply system.

National Energy Legislation

The NPC recommends passage of national energy legislation as embodied in the 108th Congress conference report on HR.6 as the vehicle with the highest probability of obtaining prompt action on the reformulated gasoline (RFG) oxygenate, oxygenate liability, and boutique fuel issues. While clearly a compromise, the package will help remove some of the uncertainty around the future of the domestic refining industry.

- ***Oxygenate Liability.*** Congress should enact limited liability protections against defective product claims involving methyl tertiary butyl ether (MTBE) and other federally required additives. This action would eliminate only defective product claims that penalize fuel manufacturers for meeting the Clean Air Act requirements. Negligence and other traditional causes of action for MTBE cleanup would be unaffected.
- ***Boutique Fuels.*** Requests for specialty fuels formulations, whether driven by NAAQS or otherwise, should be approved only where such programs are necessary and cost-effective relative to other emissions reduction options. Proliferation of boutique fuels has fragmented the market, increasing the potential for supply disruptions and price volatility. While the industry has been able to adapt to the current slate of boutique fuels without significant supply disruptions, continued proliferation would substantially increase the risk of supply disruption and price volatility. Implementation of state and local fuels programs, including any actions on MTBE, should be coordinated to avoid hindering operation of the distribution system and should provide sufficient lead time to implement any necessary refining and distribution changes. Repeal of the 2% oxygenation requirement for RFG could eliminate much of the incentive for boutique fuel proliferation.

  DOE and EPA should conduct a joint study of the boutique fuel issue, with participation by the stakeholders. This study should provide important information on the impact of boutique fuels on fuel production and distribution.

Sound Science, Cost Effectiveness, and Energy Analysis

The 2000 NPC refining report recommended that: *"Regulations should be based on sound science and thorough analysis of cost effectiveness."*

Executive Order 13211, signed by President Bush in 2001, requires agencies to prepare a "Statement of Energy Effects" including impacts on energy supply, distribution, and use, when undertaking regulatory actions. The NPC recommends that Executive Order 13211 be made law and strictly enforced.

The NPC is not suggesting elimination or rollback of environmental requirements, but rather that the cost analysis of proposed regulations should include a thorough analysis of energy supply effects from production to end-use. Examples of regulations that the NPC does not believe reflect a thorough analysis of the energy supply effects include ULSD and NAAQS regulations. As a result, implementation of these regulations may impose unintended costs without commensurate benefit.

Regulatory cost/benefit analysis should be performed on an incremental basis, to ensure that the cost of each required increment is justified. Using a total and average analysis may result in adopting emissions reduction increments that are not cost effective.

Permitting

Streamlining the permitting process would help improve the environment for domestic refining capacity investment. Some activities are currently underway to review processes and identify streamlining opportunities; these activities should include industry and other stakeholders. Streamlining should provide for expeditious overall review and a clearly defined process for obtaining a permit, with agency roles and responsibilities well-defined and specific deadlines for making permit decisions.

Depreciation Schedule Adjustment

Adjusting the depreciation schedule for all refining equipment to five years from the current ten years, consistent with the treatment of similar process equipment in other manufacturing industries, would have a positive impact on expansion investment economics. This action would reduce the capital recovery period for investment in refining equipment, helping to offset the historically low returns in the refining/marketing business that have hindered investment in capacity expansion.

The depreciation adjustment should be applied to all new domestic refining investment. Attempts to apply revised treatment to some small sub-segment of investment may have the perverse effect of reducing the incentive for more significant additions in base capacity. The depreciation schedules for petroleum pipelines and storage facilities should be similarly reduced.

Fuel Waivers and Enforcement Discretion

Use of exemptions, exceptions, and waivers should be limited to serious supply disruptions that affect end users' ability to obtain petroleum products. States have sought and EPA has repeatedly considered and/or granted enforcement discretion, and this has increased uncertainty in the marketplace. EPA should issue a definitive variance procedure for allowing non-complying fuel to be sold in the marketplace. Proposed guidance on waivers has been recently released by EPA as a first step in this process.

Alternative Fuels

Mandates or subsidies for alternative fuels increase uncertainty and reduce the incentive for investment in additional domestic petroleum refining capacity. Therefore, these mandates and subsidies may not reduce petroleum product imports as intended and could increase the cost to consumers.

Distillation and Driveability Index

The 2000 NPC refining report recommended that the Driveability Index not be changed without thorough additional analysis. To date, EPA has resisted automakers' calls for a reduction in Driveability Index, or a change to Distillation Index (Driveability Index plus an ethanol adjustment). EPA should continue this position. A reduction in Driveability or a change to Distillation Index could result in a significant reduction in domestic refinery gasoline producibility.

Site Security

Site security enhancement should remain an industry responsibility with ongoing risk assessment coordinated with the Department of Homeland Security, which should retain the lead federal coordination role. Refining industry participants are committed to keeping their facilities secure from threats of violence and terrorism. Refiners have expended substantial resources to enhance security and expect to continue to do so. There are proposals being discussed that include provisions for refining technology changes and criminal liability. In the opinion of the NPC, these provisions do not provide an additional security benefit but have the potential to negatively impact light product production capability.

2005 Domestic Capacity

These recommendations are aimed at avoiding hindrance of capacity expansion, improving the environment for investment in domestic refining and logistics capability, and allowing the current supply system to continue to operate efficiently. These recommendations should be implemented as soon as practical.

Major refinery modifications can take four or more years lead time for all the activities necessary for implementation. Due to this long lead time, the capacity that will be available in 2005 is the result of regulatory actions and investment decisions over the last several years. The NPC has not identified any government actions that could significantly increase the domestic refining capacity available for 2005.

Mr. HALL. Mr. Slaughter, thank you. The Chair now recognizes Erik Olson, Senior Attorney of the Natural Resources Defense Counsel. Mr. Olson is the National Coordinator of the Campaign for Safe and Affordable Drinking Water and previously an attorney at the Office of General Council of the Federal EPA. I recognize you for 5 minutes, Mr. Olson, and thank you.

STATEMENT OF ERIK OLSON

Mr. OLSON. Thank you for inviting us to testify this morning. I appreciate the opportunity. I would like to, just as an overview, say that we believe strongly that this legislation should make energy efficiency and renewables the centerpiece of the entire legislation. We recognize that there are titles on both issues, but we believe that there is a lot farther that we could go to improve energy efficiency and renewables as part of it. It is good for the economy, good for the environment, and good for national security to do that. It is ironic, unfortunately, that the bill, at a time when the New York Times reported in the last week that the oil companies are "making more money than they can comfortable spend," that this bill goes forward with several bail-outs or subsidies for the very fossil fuel industry, in many cases, that are making this money. We don't oppose further drilling. We do not oppose further energy development as long as it is in areas that can handle it and within laws that apply, including laws like the National Environmental Policy Act, the Clean Air Act, and the Drinking Water and Clean Water Act.

I wanted to address an issue that has been raised by several previous panelists, which is the MTBE issue. We are very concerned that there is widespread contamination of drinking water by MTBE, something in the neighborhood, according to U.S. geological survey, of about 5 percent of drinking water wells and far higher than that percentages in some areas, including the Northeast, are contaminated. This is a very soluble compound. It is very mobile; it is very persistent; and there are health concerns. I wanted to quote what the Environmental Protection Agency's Health Advisory says about the cancer risk. The carcinogenicity data support a conclusion that MTBE poses a potential carcinogenicity to humans at high doses. The data do not support a confident quantitative risk estimate, but they did find that there is a cancer risk. There are also other health risks.

We believe that it is unfortunate that this bill includes a MTBE liability waiver. The problem that has been raised is that not only are these widespread contamination incidents continuing to crop up, but there are many communities that simply can't afford to clean it up. These are not issues of wild trial lawyers running around, filing lawsuits. These suits are mostly filed by local governments, by State Attorneys General, by State officials, and the costs are being imposed on local communities on these types of spills and leaks. Unfortunately, because of the widespread contamination, the cost of cleanups are going to be enormous, and waiving liability for the oil industry for these cleanup costs, unfortunately, is going to result in mom-and-pop gas station being the only ones caught holding the bag, and unfortunately, they will not be able to pay for many of these cleanups.

It has been raised that negligence and other forms of liabilities still would be allowed. Again, generally, that type of liability only goes against a mom-and-pop gas station. It is not going to likely be held against a large oil company; and therefore, the deep pockets that can afford to clean this up will not be available to pay for it.

I would also like to raise the issue of industry's argument that the Clean Air Act required them to use MTBE. It is simply not a fact. There is an oxygenate mandate in the 1990 Clean Air Act; however, the industry, as my testimony documents, was using MTBE widely, well before the Clean Air Act was passed. And in fact, one of the reasons that liability has been held to apply to the oil industry is that the industry knew of the risks and did not warn of the risks, so a lot of people thought that MTBE was going to be used, but they were not in possession of the information that industry had of some of the risks of MTBE. In fact, not only were there large amounts being used prior to 1990, but the industry knew well that there were leaks and there were contamination problems that were already cropping up well before the Clean Air Act was passed.

Therefore, we think it is a mistake to waive liability, that the costs being imposed on local and State governments are large, and that it is simply inappropriate for Congress to step in and preempt State and local governments from protecting their citizens.

One other issue that I just wanted to briefly raise is the issue of hydraulic fracturing. We believe strongly that hydraulic fracturing, which is pumping under high pressure certain fluid into the ground to enhance oil or gas recovery, is, in some cases, risky. It, in some cases, uses MTBE-contaminated or diesel fuel in the injected fluids and can cause contamination of groundwater as well as drinking water. We believe that, as the National Drinking Water Advisory Council recommended, there should be a preservation of the EPA's authority to regulate hydraulic fracturing. The bill would block that kind of regulation. I will just point out that a court recently held that this should be regulated under the very flexible, so-called class II well requirements that are applied to over 100,000 other oil- and gas-related wells.

Thank you, and I would like to, again, extend our appreciation to the committee to allowing us to testify.

[The prepared statement of Erik D. Olson follows:]

TESTIMONY OF
ERIK D. OLSON
SENIOR ATTORNEY
NATURAL RESOURCES DEFENSE COUNCIL

HEARINGS ON THE ENERGY POLICY ACT OF 2005

BEFORE THE
SUBCOMMITTEE ON ENERGY AND AIR QUALITY
OF THE
COMMITTEE ON ENERGY AND COMMERCE
UNITED STATE HOUSE OF REPRESENTATIVES

FEBRUARY 16, 2005

ABSTRACT

The United States needs a well-reasoned, balanced, and forward-looking energy policy. The draft Energy Policy Act of 2005 widely misses that mark. We favor legislation that would set a new course by encouraging clean renewable fuels and energy efficiency to gradually become the foundation of our nation's energy policy. We are a nation of innovators. The real energy solution for a greater national security, a strong economy, and a healthy environment is a lifeline of technology and efficient energy choices supplied by industries and workers at home, not a lifeline of oil. We would be less dependent upon foreign and dirty sources, would reduce the global warming threat, and would spend less on subsidies and on defending access to foreign oil if we embraced renewables and energy efficiency. Unfortunately, even at a time that the New York Times reports that big oil companies "are making more money than they can comfortably spend," this legislation props up the old system, subsidizes polluting energy, and fails to give clean renewable energy sources and efficiency their due.

In addition to the numerous missed opportunities to set the nation on a positive course, we have identified over 60 provisions in the draft that undercut environmental protections or undermine efforts to encourage use of clean renewable energy. Some areas are simply too environmentally sensitive to drill – like Arctic National Wildlife Refuge, much of the Outer Continental shelf (OCS), lands of wilderness quality, and roadless areas in our national forests. The nation's landmark environmental laws, like the National Environmental Policy Act, Clean Water Act, Safe Drinking Water Act, and Clean Air Act are critical to ensuring that energy development moves forward in a way that minimizes its negative impacts and limits controversy. Congress should not relax them. Despite advances in technology, energy exploration and development have lasting impacts. Energy development is changing the landscape of the West. It is depleting scarce water resources and destroying trout streams and farmers' fields. Meaningful environmental review and public participation are critical to diffusing controversy concerning energy development and to protecting our future.

Among the proposed changes in this bill and last year's energy legislation that cause us deep concern and that I will focus upon in my oral statement are the provisions that would impede progress on addressing the national problem caused by the gasoline additive MTBE, which has contaminated water across the nation and caused widespread drinking water contamination. MTBE is extremely soluble in water, persistent, poses health concerns including possible cancer and other toxicity risks, and renders water undrinkable. Rather than fixing this problem, the bill bars product liability lawsuits against refiners for clean up of past and future MTBE contamination, and would allow use for 11 more years. Moreover, the President may revoke the MTBE phase-out for any reason. At least 14 states have completely or partially banned MTBE; the bill may even preempt these state actions.

There is a related issue involving potential groundwater contamination with MTBE and other toxic materials. Hydraulic fracturing (HF) is a process of injecting fluids under pressure, sometimes containing MTBE, diesel fuel, or other toxins, to fracture underground formations to remove natural gas. A court has ruled that HF must be regulated under the highly flexible oil and gas-related provisions of the Safe Drinking Water Act. The balanced Congressionally-chartered National Drinking Water Advisory Council recommends that EPA retain its authority to regulate this potentially harmful practice. Congress should not impede this current authority.

We also are concerned about other possible revisions to water protections. Congress should not exempt oil and gas companies from storm water controls under the Clean Water Act as proposed in last year's bill. Storm water runoff can cause excessive sediment flow into waterways, harming drinking water supplies and aquatic life. Similarly, we are concerned about proposals that could undermine or fail to assure needed improvements to the LUST program. We oppose proposals to undercut the polluter pays principle by prohibiting cost recovery from polluters if their ability to stay in business is "significantly impaired" (an undefined term), and believe tanks should be inspected every 1-2 years. The bill should also require secondary containment of new replacement pipes and tanks.

Introduction & Overview

I am Erik D. Olson, a Senior Attorney at the Natural Resources Defense Council (NRDC), a national non-profit organization with over 500,000 members dedicated to the protection of public health and the environment. I also serve as chair of the Campaign for Safe and Affordable Drinking Water, an alliance of over 300 public health, medical, consumer, environmental, and other organizations seeking to assure safe drinking water at a reasonable price to all Americans, though today I do not appear on behalf of the Campaign.

Missed Opportunities

The draft energy legislation appears little different than HR 6 of the 108th Congress. Last year's HR 6 would have done little to address high energy prices or our dependence on foreign oil and gave away billions of dollars in subsidies to polluting industries. We also identified over 60 anti-environmental provisions in the bill, from exemptions to laws that protect clean air and drinking water to statutes that protect streams and wetlands. This year's energy bill appears to be full of the same missed opportunities to enhance our energy security and favors industry over public health or environmental protections.

My testimony focuses primarily upon the public health implications of this energy bill, particularly with respect to provisions concerning the toxic gasoline additive MTBE, Safe Drinking Water Act regulation of hydraulic fracturing, and clean water protections. Part 1 of my written testimony focuses primarily on MTBE. Part 2 briefly notes another important water issue likely to be addressed in the energy legislation, the use of hydraulic fracturing in oil and gas activities, which may harm water supplies. Part 3 highlights what the oil industry knew about MTBE problems, and when they knew about them, and was written by the Environmental Working Group. Part 4 addresses concerns with Clean Water Act revisions that have arisen during the energy bill debate.

Energy Security

The United States uses over 25% of the world's oil each year and yet has just 3% of the world's oil and gas reserves. America's dependence on oil is a threat to our national security, our economy, and our environment. A significant portion of the world's oil is in regions that are openly hostile to America. The United States cannot drill its way to energy independence, because our reserves will never be enough to meet our growing demand for fossil fuels. We will continue to rely on foreign oil unless our oil consumption is reduced through conservation and the development of renewable sources. Energy efficiency is the fastest way for American to increase our oil independence and reduce our use of other polluting sources of energy, such as coal and nuclear power, yet this year's energy bill lacks meaningful efficiency standards for vehicles or buildings, and fails to make significant investments in renewable energy.

America is a nation of innovators. The real energy solution for a greater national security, a strong economy, and a healthy environment is a lifeline of technology and efficient energy choices supplied by industries and workers at home, not a lifeline of oil. The United States must begin immediately to ease our intense oil addiction, first by making a national commitment to save 2.5 million barrels of oil per day by 2015. A key component of such a plan would increase the efficiency of cars and trucks, since the transportation sector will be responsible for 80% of the oil demand through 2020.

NRDC believes that a healthy environment goes hand in hand with a healthy environment. We believe that this country can continue to have strong economic growth and a high standard of living while reducing our oil dependence and cutting pollution. This can be achieved by investing in America.

Congress' Duty to Protect Public Health

The oil and gas industry are enjoying record profits while consumers are paying record prices at the pumps. The New York Times reports that oil companies have a "burden of too much cash," explaining that the are so "flush with cash, they find themselves in a paradoxical position - they are making more money than they can comfortably spend."[1] And yet the same industry has come before Congress today to ask for subsidies, royalty relief, and permission to drill in special places that the American public holds sacred, exemptions from bedrock public health and environmental laws, and liability limits for industry-related groundwater contamination.

The nation's landmark environmental laws, like the National Environmental Policy Act, the Clean Water Act, and the Clean Air Act, are critical to ensuring that energy development moves forward in a way that minimizes its negative impacts and limits controversy. Congress should not relax these laws. Despite advances in technology, energy exploration and development have lasting impacts on the environment and potentially human health. Energy development is changing the landscape of the West. It is depleting scarce water resources and destroying trout streams and farmers' fields. The key to accelerating energy development is to identify these impacts and address them.

Public Participation

Meaningful environmental review and public participation are critical to diffusing controversy concerning energy development. Increased drilling activity in the West has caused real damage on the ground. Ranchers, farmers and others have seen their domestic water wells run dry due to gas drilling activities; had domestic and agricultural water supplies tainted or poisoned by drilling fluids and waste products; lost agricultural crops to water pollution; lost favorite hunting grounds to industrial development; seen increased community costs for maintenance of roads, bridges and other infrastructure; suffered a decline in real estate values due to industrialization of their property and adjoining lands; and experienced a general decline in the quality of life that is central to the economic vitality of the American West. The key to accelerating energy development is to identify these impacts and to address them.

As the National Commission on Energy Policy recommended, the federal agencies responsible for managing our public land resources need more money. Increased appropriations are important not simply to get permit applications reviewed faster, but also to "improve monitoring and data collection."

PART 1.
MTBE: WATER QUALITY CONCERNS, AND THE NEED FOR FEDERAL LEGISLATION

Overview of the MTBE and Air Pollution Issues

It is nearly impossible, and very expensive, to remove MTBE from water supplies once they become contaminated. USGS data show about 5% of public water supply wells contain MTBE, and 15% of drinking water supplies in MTBE use areas contain this chemical. Widespread leaking underground storage tank (LUST), spills, and other sources are responsible. Most MTBE pollution is below EPA's 20-40 ppb advisory level, but there are many contamination incidents above this level. A map of MTBE contamination incidents is included in this testimony. This widespread contamination and the high costs of cleanup are why we, and state and local governments, vigorously oppose any MTBE liability waivers.

It has been argued that the oil industry was "forced" to use MTBE as part of the 1990 Clean Air Act's oxygenate mandate, and that therefore the industry should not be held responsible for the widespread water contamination. This is a distortion. Neither EPA nor Congress ever mandated that industry use MTBE. Elements of the petroleum industry urged the use of MTBE, even though internal industry documents show that industry knew at least in the early 1980s that MTBE was highly mobile, highly water soluble, highly persistent, and could render water unusable at low levels. The industry was aware that many of its tanks were leaking fuel, often including MTBE. A court held major oil companies responsible for acting "with malice" in failing to warn the public about MTBE.

We support legislation that would phase out MTBE and would eliminate the 2% oxygenate requirement, while maintaining air quality benefits. We do not favor an ethanol mandate. The "deal" that was struck previously in the Senate was marred by a deal-breaker amendment that preempted both state and federal liability for oil company contamination of water supplies by "renewable fuels." This was expanded in a House counter offer to include MTBE. We strongly oppose any provision that would eliminate any legal tools available to local governments, water suppliers, or others harmed by contamination of water supplies. Industry knew about MTBE problems and could have controlled them, and must have the incentive to minimize and address the impacts of new fuels and additives

The bill weakens the Reformulated Gasoline (RFG) and related clean fuels programs, the bill weakens the Reformulated Gasoline (RFG) and related clean fuels programs, and fails to ban the gasoline additive MTBE, which has contaminated water in all 50 states and caused widespread drinking water contamination, for 11 years. The President may revoke the MTBE ban for any reason. The bill may even preempt states from banning MTBE, and bars product liability lawsuits against refiners for clean up of past and future MTBE contamination. Even though the bill eliminates the oxygen requirement in RFG, refiners can use as much or as little MTBE as they want with impunity. Dirty air areas will continue to refuse to adopt RFG for fear of MTBE contamination.

Provisions in the legislation would undercut clean air protections, as is discussed in the attached statement by David Baron of Earthjustice. The bill prevents dirty air areas from adopting alternative clean fuel requirements without MTBE such as that used successfully in Atlanta. It permits RFG fuels marketers to exceed RFG volatility requirements up to 20 days each ozone season (Fuel volatility could reach 25% above specifications). In addition, the bill allows EPA to extend smog cleanup deadlines for meeting both the one-hour and eight-hour health standard without requiring additional cleanup measures. The extension criteria are so vague that dozens of areas in over 25 states may be able to delay compliance with the ozone standard.

The bill allows EPA to delay dirty air areas in western Michigan from being identified and subject to eight-hour smog clean up requirements, and fails to include measures to protect air quality from smog increases that may come from dramatically increasing ethanol use in conventional gasoline required by the Renewable Fuel Standard (Title XV), especially in areas that exceed the eight-hour ambient air quality standard for ozone (smog).

Why MTBE?

Because of serious air pollution triggering smog alerts in many "non-attainment" areas around the nation, EPA began investigating changes in fuel supplies that could result in air quality improvements. For many years EPA was investigating the possible widespread use of methanol (a chemical cousin of ethanol) as a fuel. The petroleum industry, on the other hand, had another idea: reformulated gasoline that was produced from a byproduct fraction of petroleum cracking that for years had little market, called methyl *tert*-butyl ether (MTBE). MTBE could be used as an "oxygenate," elements of the petroleum industry argued, and would reduce carbon monoxide emissions and ozone levels in the atmosphere, leading to air quality benefits.

1990 Clean Air Act Amendments

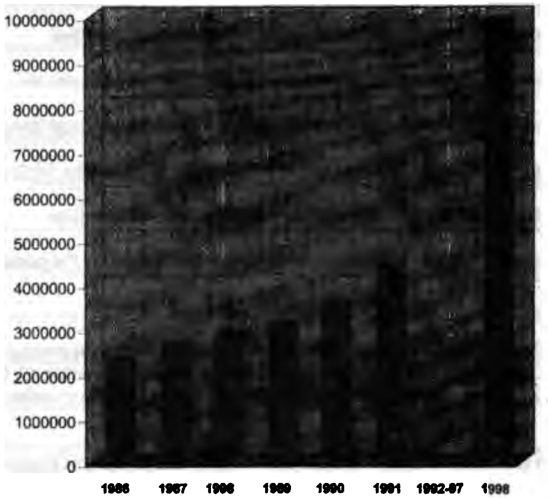
In enacting the Clean Air Act Amendments (CAA) of 1990, Congress required the use of oxygenates in gas, in order to improve air quality. The use of oxygenates makes gas burn cleaner. The oxygenate requirement also was enacted in part because Congress hoped to give a big boost to the *ethanol* industry, which can use distilled "biomass" to make this alcohol. Instead of switching mostly to ethanol, the petroleum industry chose to use MTBE as the oxygenate of choice. MTBE use skyrocketed (see figure 1). By 1998, MTBE became "the second most-produced organic chemical in the U.S.," with about 10 million gallons used per day.[2]

EPA Blue Ribbon Panel on MTBE

EPA's Blue Ribbon Panel on MTBE concluded that the Reformulated Gasoline Program (RFG) established in the Clean Air Act Amendments of 1990 "has provided substantial reductions in the emissions of a number of air pollutants from motor vehicles...." The reductions were greater, in fact, than legally required. The panel also noted that "there is disagreement about the precise role of oxygenates [such as MTBE] in attaining the RFG air quality benefits," though oxygenated fuels did, the panel concluded, probably reduce emissions. But in large because of the water quality problems caused by MTBE, the panel recommended:

- "Action...to reduce the use of MTBE substantially (with some members supporting its complete phase-out), and action by Congress to clarify federal and state authority to regulate and/or eliminate the use of gasoline additives that threaten drinking water supplies;
- "Action by Congress to remove the current 2 percent oxygen requirement to ensure that adequate fuel supplies can be blended in a cost-effective manner while quickly reducing usage of MTBE; and
- "Action by EPA to ensure that there is no loss of current air quality benefits."

FIGURE 1
U.S. MTBE USE (gal/day)



Source: NRDC, Based on API Data

Serious Concerns about Water Quality

While MTBE may have contributed to improved air quality in some communities, the bad news is that MTBE is extremely soluble in water, far more soluble than hydrocarbon components such as benzene, toluene, and xylene (see Figure 2).

Industry Knew Long Before 1990 CAA Amendments MTBE Was a Problem

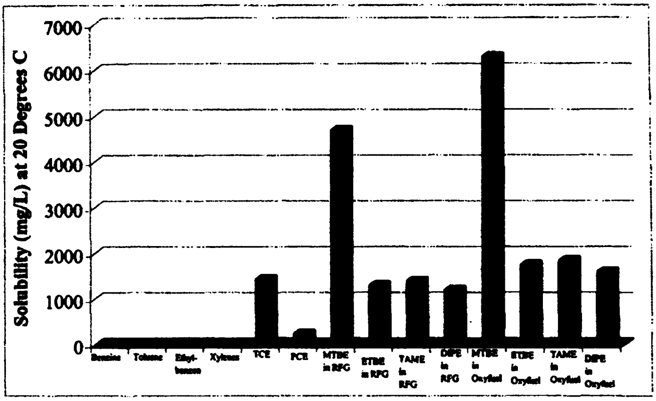
As discussed at length in Part 3 in this testimony, internal oil industry documents th were only released in litigation show that the oil industry well aware of MTBE's water-contaminating properties before the 1990 Clean Air Act Amendments. These documents a show that the industry was aware that spills or leaks containing MTBE spread very fast, and were extremely difficult and expensive to clean up. Indeed, by 1981, a Shell scientist wrote an internal report on an MTBE contamination problem and the difficulties of cleanup. The joke inside Shell was that MTBE really stood for "Most Things Biodegrade Easier;" later, other versions of the joke circulated, including "Menace Threatening Our Bountiful Environment," or "Major Threat to Better Earnings."

These and many other facts, documents, and testimony were considered by the jury that found that there was "clear and convincing evidence" in the South Tahoe case that Shell Oil and Lyondell Chemical Company (ARCO chemical Company) acted "with malice" in selling gasoline containing MTBE both because it was "defective in design" because the risks of harm outweighed its benefits, and because of their failure to disclose the threats posed by MTBE.[3] Several other oil company defendants opted to settle the case before these findings were rendered.

Other MTBE Chemical Cousins May Also Present Problems

Other ethers being considered as gasoline additives, such as ethyl-tert-butyl ether (ETBE), *tert*-amyl methyl ether (TAME), and di-isoproyl ether (DIPE) also are extremely soluble, like MTBE. (Figure 2). The high solubility of MTBE has lead to widespread contamination of groundwater and surface waters across the nation.

FIGURE 2: SOLUBILITY OF HYDROCARBON COMPOUNDS VS. MTBE AND OTHER ETHERS



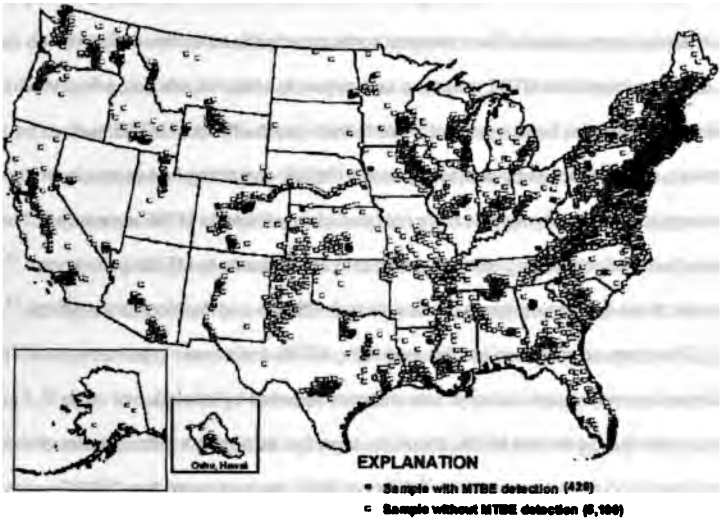
Source: NRDC, using data presented in Johnson et al., USGS, 2000

Widespread MTBE Contamination of Water

According to estimates from U.S. Geological Survey (USGS) experts, there may be 250,000 leaking underground storage tank (LUST) releases of MTBE.[4] Pipeline releases, gas spills, and other sources also contaminate groundwater and surface water with MTBE. USGS estimates that about 35% of community water system wells are located within 1 km of a LUST (9000 wells).[5]

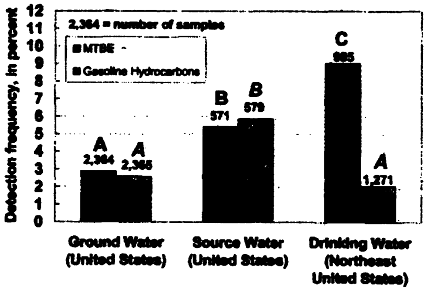
Recent (March 2003) USGS data indicates that about 3% of groundwater wells in the U.S. contain MTBE, and about 5% of source waters contain MTBE (FIGURES 3 & 4).[6] Testing also indicates that MTBE is often found in tap water—about 9% of water supplies in the Northeast that were tested.[7] About 15% of drinking water in the high MTBE use areas in the Northeast contained MTBE.[8] Most is found at relatively low levels; about 1% of northeastern drinking water exceeded the low end of EPA's advisory level (20 ppb).[9]

FIGURE 3
USGS DETECTIONS OF MTBE


Oahu, Hawaii
EXPLANATION
● Sample with MTBE detection (420)
▫ Sample without MTBE detection (5,100)

(Source: Moran, Zogorski, and Squillace, 2003)

FIGURE 4: FREQUENCY OF DETECTION OF MTBE



(Source: Moran, Zogorski, and Squillace; 2003)

Health Concerns With MTBE

MTBE contamination of drinking water poses health concerns, but as is usually true with chemical contaminants, there remains some uncertainty as to how serious these risks are. EPA has found that MTBE may be a carcinogen, but has not reached a final verdict on the issue. There have been reports of acute human-health effects of MTBE such as nausea, dizziness, and headaches by people exposed to MTBE-containing fuel vapors in air, though some argue that these symptoms have not been clearly linked to MTBE exposure.[10] The human-health effects of long-term inhalation or oral exposures to MTBE are unknown.[11] However, there is some evidence of possible reproductive and developmental effects.[12]

There are no published studies evaluating MTBE and cancer in humans, but MTBE has been shown to cause cancer in rats and mice exposed by inhalation or orally.[13] Federal agency reports indicate that MTBE should be regarded as posing a potential cancer risk to people based on animal cancer data.[14] Although EPA has concluded that "MTBE poses a potential for human carcinogenicity at high doses" based on animal data, EPA says that these animal data "do not support confident, quantitative estimation of risk at low exposure"[15] EPA has based its Drinking Water Advisory upon taste and odor thresholds (20 to 40 µg/L) in humans, and has not yet established any enforceable health standard for MTBE.[16] Consumer rejection due to taste and odor of MTBE often has been a factor in water utility decisions to stop using or to treat water sources contaminated with MTBE.

State Actions Banning or Restricting MTBE

In response to widespread concerns about MTBE contamination, at least 17 States have adopted bans or serious restrictions on MTBE usage, and two have required intensive studies of MTBE contamination.

Need for federal Legislation

There is an urgent need for federal legislation that would:

- *Ban MTBE, while maintaining air quality.* Congress needs to step in and enact a clear MTBE ban, but should accompany this with a requirement that air quality benefits of reformulated gas not be reduced. While there have been huge pollution reductions in smog and cancer-causing air toxics from the switch to reformulated gasoline, Congress can no longer ignore the harm being done by gasoline and MTBE leaking into drinking water supplies. Oil refiners have the ability to produce gasoline that achieves just as much air pollution reduction without oxygenates such as MTBE, but the law currently mandates their use. Congress should act immediately to repeal the mandate. It makes no sense to have a patchwork approach to this problem with 15 to 20 states banning MTBE; if Congress doesn't act and state bans go into effect, this could create needless confusion and burdens for consumers.
- *Prohibit oil companies from producing a fuel that is less effective at reducing smog and toxic air pollutants than the RFG sold today* when they remove oxygenates. We do not need to take a step backward in combating air pollution in order to protect groundwater.
- *Eliminate the 2% oxygen mandate.* We agree with numerous state officials, health groups, and API that Congress must lift the oxygenate requirement (and ban MTBE) while maintaining air quality benefits.
- *Give EPA clear authority to regulate fuel additives based upon air and water quality impacts* (the previous Senate energy bill would have embodied this authority; the House counter-offer did not).

- *No ethanol mandate*. The legislation should set standards for gasoline performance, rather than mandate a particular solution to the problem.
- *Encourage use of clean, renewable biofuels made from biomass*, which reduce global warming while improving air quality and reducing water risks.

No Waiver or Preemption of State or Other Liability for Fuel Contamination

Our most overwhelming concern is that the legislation should not include any waiver or preemption of state or other liability for renewable fuels or MTBE. Legislation including a so-called "safe harbor" provision would preempt state law and effectively remove tools available to states and municipalities to remedy tap water contamination problems from fuel containing "renewable fuels." Such a provision would block lawsuits alleging that gasoline is a defective in design or manufacture because it contains such renewable fuels. A similar Senate measure previously was answered by a House conferees' offer that would have expanded this waiver of liability and preemption to MTBE.

Such a waiver of liability and preemption of State law is an unacceptable overreach that will hurt the public, local governments, the environment, and will encourage irresponsible corporate behavior. As the South Tahoe jury found after an extensive trial and review of an enormous number of industry documents and witnesses, many in the oil industry knew of the risks of MTBE, and irresponsibly failed to act or to warn the public or their customers.

Well before Congress enacted the 1990 CAA, the oil industry was aware of the risks posed by MTBE to water supplies, of the difficulty of cleaning up spills and leaks, of the persistence of MTBE, and of the fact that many oil storage tanks were leaking. Elements of the oil industry knew of problems a long time ago, and according to the California jury, acted "with malice" in failing to disclose these risks. As between this highly culpable oil industry that knew about the problem, failed to remedy it, and profited from the sale of their defective product, and the public water supplies that had nothing to do with creating the problem, and would have to bill their customers to remedy it, who should pay for the cleanup? Clearly, the oil industry should not be let off the hook for this liability. Why deny an important tool to local government and water utilities to address this important drinking water quality and potential health problem?

A liability waiver and preemption also would create unacceptable incentives for manufacturers to introduce defective products. What will be the next MTBE? TAME? DIPE? ETBE? Why do the renewable fuels manufacturers need such liability protection? Do they know of problems with their products that they are not telling Congress or us about, much like the oil industry was not very forthcoming about the problems with MTBE before it came into such widespread use?

The petroleum industry is clearly in best position to know about and to take action to avoid another MTBE. Industry must have the incentive to minimize the impacts of new fuel additives or new fuels.

. In a previous congress, there was a strong alliance behind a sensible solution to the MTBE and oxygenate problem, which included API. The liability waiver and preemption was added after that deal was cut, and is a deal breaker. We oppose any legislation that contains the provision as part of the energy bill.

PART 2

THE NEED TO REGULATE HYDRAULIC FRACTURING TO PROTECT UNDERGROUND SOURCES OF DRINKING WATER

There is another threat to drinking water and ground water by chemicals also used in gasoline and diesel fuel that is worthy of discussion and protective action by Congress. Hydraulic fracturing is a well development process that is designed to increase the yield of natural gas from underground rock formations, including coal. Fluid is injected down a well and into a rock formation at very high pressure in order to break up the rock formation and enable more gas to flow toward the well after all the groundwater has been removed.

Hydraulic fracturing fluid commonly contains many toxic chemicals that pose a significant threat to underground sources of drinking water. The carcinogen benzene, and MTBE, diesel fuel, and many other chemicals are known to be used in hydraulic fracturing fluids. It is well known that very small volumes of potent chemicals like benzene and MTBE can contaminate millions of liters of ground water. In recent years, that has been painfully obvious as MTBE contaminated ground water and surface water across the country. Just 28 tablespoons of MTBE could contaminate millions of liters of ground water at concentrations that would render it unusable.[17] It is important to note that the large number of coal bed methane wells planned in the US are of particular concern because their depths are relatively shallow and 10 of the 11 coal basins in the US are likely to lie, at least in part within existing underground sources of drinking water.[18]

A report by EPA revealed that many of the estimated concentrations of chemicals used in hydraulic fracturing fluids at the edge of the fracturing zone exceed the drinking water maximum contaminant levels (MCL) – even with an estimated dilution effect of 30.[19] The EPA report reveals that the estimated concentration of the carcinogen benzene is twice the drinking water MCL. The estimated concentrations of other chemicals exceed their MCLs by much greater factors – 431 times the MCL in the case of methanol.[20]

There are a very limited number of empirical scientific studies that have evaluated the behavior of these chemicals in the subsurface and their effects on groundwater quality. The toxic chemicals used in fracturing fluid can be continuous sources of ground water contamination since, as the EPA report reveals, as much as 39-75% of fracturing fluids remain in the ground.[21]

After briefing some staff from the House Energy & Commerce committee in 2002, it was discovered that EPA's calculations for estimated subsurface concentrations of chemicals of concern were based on values that were not consistent with data in their report that resulted in estimated concentrations 10 times lower.[22] [23] A January 2003 article in Environmental Science & Technology includes the suggestion by a USGS hydrologist that EPA's dilution factor of 30 is not justified and that even if "only 20-30% of the fracturing fluids remain in the formation and the fluids include diesel fuel, the aquifer would be destroyed because the diesel will remain as a contaminant for generations." [24]

The near-impossibility of cleaning up underground sources of drinking water once they have become contaminated is precisely why Congress acted with precaution to protect existing and future sources of drinking water in the Underground Injection Control provisions of the Safe Drinking Water Act. Preventing widespread contamination of drinking water is far less expensive than attempting to clean it up later.

EPA's Congressionally-chartered National Drinking Water Advisory Council, comprised of representatives of the water industry, state and local governments, public health experts, consumers, environmental groups, and others, unanimously adopted a resolution December 12, 2002 urging the Administrator "to work through voluntary and/or regulatory means as appropriate in order to eliminate the use of diesel fuel and related additives in fracturing fluids that are emplaced in geologic formations containing sources of drinking water." Furthermore, the National Drinking Water Advisory Council urged the Administrator "to defend as necessary the US EPA's existing authority and discretion to implement the Underground Injection Control Program in a manner that advances the protection of our ground water resources from contamination." Support for oversight of state Underground Injection Control programs by EPA is growing in many states as they face serious budget shortages.[25]

We are very concerned about provisions in the legislation that addresses hydraulic fracturing. EPA should conduct meaningful field investigations that include collection and analysis of groundwater samples and installation of monitoring wells. In addition, EPA must retain its authority to oversee state regulation of hydraulic fracturing through the Underground Injection Control program to prevent contamination of underground sources of drinking water – consistent with Congress' intentional precautionary action via the Safe Drinking Water Act.

PART 3:
MTBE:
WHAT THE OIL COMPANIES KNEW AND WHEN THEY KNEW IT

Internal Industry Documents Are Rewriting The MTBE Pollution Story

In 2002, the Environmental Working Group released a report summarizing a series of internal oil industry documents that highlight the true story about MTBE. That report, available in full at www.ewg.org, is excerpted in this section of the testimony (web links to electronic versions of the industry documents cited in this testimony are included for readers of the electronic version of the testimony; readers or the written testimony can access these document at the website above).

The proposed legislation would strictly limit oil company liability for contaminating groundwater in at least 35 states with MTBE. The industry says it's only fair to shield MTBE makers from lawsuits, since, they claim, it was the government that mandated oil companies to reformulate gas with MTBE in the first place, to clean the air.

But a different story has emerged from internal industry documents and depositions, made public in recent successful lawsuits brought by cities and Communities for a Better Environment that want oil companies to pay to clean up water made undrinkable and unhealthy by MTBE. The documents provided by lawyers involved in the litigation show that the oil industry itself lobbied hard for the MTBE mandate because they made the additive and stood to profit. A top ARCO executive admitted under oath, "The EPA did not initiate reformulated gasoline...." He clarified that "the oil industry... brought this [MTBE] forward as an alternative to what the EPA had initially proposed." [Excerpt | Full document]

By 1986, the oil industry was adding 54,000 barrels of MTBE to gasoline each day. By 1991, one year before the EPA requirements went into effect, the industry was using more than 100,000 barrels of MTBE per day in reformulated gasoline. Yet secret oil company studies, conducted at least as early as 1980, showed the industry knew that MTBE contaminated ground water in numerous locations where it was used.

Oil companies are pressing Congress for liability protection because hundreds of communities have serious MTBE contamination problems, and company documents are coming back to haunt them in the courtroom. In April 2002, the documents convinced a California jury to find Shell, Texaco, Tosco, Lyondell Chemical (ARCO Chemical), and Equilon Enterprises liable for selling a defective product (gasoline with MTBE) while failing to warn of its pollution hazard, forcing a $60 million settlement with the water district for South Tahoe. [View document].

"The Government Made Us Do It"

As noted earlier in this testimony, MTBE is an "oxygenate" that makes gasoline burn cleaner and more efficiently. Unfortunately, it is also a foul-tasting, nasty-smelling, potential carcinogen that spreads rapidly when gasoline escapes from leaky underground storage tanks, contaminating sources of groundwater and drinking water from New York to California [View document]. Once in soil or water, MTBE breaks down very slowly while it accelerates the spread of other contaminants in gasoline, such as benzene, a known carcinogen.

Some communities, including Santa Monica and South Lake Tahoe, Calif., face tens or hundreds of millions of dollars in costs of cleaning up MTBE or replacing contaminated water supplies. At least 17 states already have passed measures to ban or significantly limit the use of MTBE in gasoline; two more have required intensive studies. We believe that a federal ban is more a question of when than if.

Pressure is building to follow the lead of many states and ban MTBE nationally by the year 2006. Members of Congress from corn-producing states support the phase out in part because ethanol made from corn is the primary MTBE substitute. Other members sympathetic to oil industry concerns, in turn, are demanding that any ban on MTBE shield its makers from product-defect liability. The proposal apparently would not preclude suits against parties responsible for allowing MTBE to leak from storage tanks, but would provide immunity from suits claiming that MTBE itself was a defective product – precisely the charge that won a $60 million settlement for the South Tahoe Water District this year. The jury in that case found five oil and chemical companies liable for selling a defective product – MTBE –while failing to warn of its pollution risks. [View document]

The MTBE Papers

The paper trail, dating at least to 1980, tells a different story: How the oil companies took a byproduct fraction of gasoline refining that had little profitable use and created a profitable market. Beginning in the mid-1980s, well in advance of the 1992 federal mandate to reformulate gasoline to meet the standards of the Clean Air Act, elements of the petrochemical industry promoted MTBE to U.S. and state regulators as the additive of choice.

Thousands of pages of internal documents and sworn depositions from the producers at Shell, Exxon, Mobil, ARCO, Chevron, Unocal, Texaco and Tosco (now Valero) have come to light through a lawsuit by Communities for a Better Environment, a California public interest group. Many of the same documents were used in a suit by the South Lake Tahoe Water District against four oil companies and Lyondell Chemical Co. of Houston (ARCO Chemical Company), the nation's largest MTBE producer. In the CBE suit, several of the companies settled by agreeing to clean up MTBE spills at more than 1,300 California gas stations; the others continue to contest the case.

In 2002, a jury in the Tahoe case found Lyondell, Shell, Texaco, Equilon, and Tosco guilty of irresponsibly manufacturing and distributing a product they knew would contaminate water. In addition, the jury found by "clear and convincing evidence" that both Shell Oil Company and Lyondell Chemical Company acted with "malice" by failing to warn customers of the almost certain environmental dangers of MTBE water contamination. [View document]

In an interview with *The Sacramento Bee*, the jury foreman said he found the MTBE papers, which demonstrated the industry's early knowledge that MTBE would threaten water supplies "among the most compelling evidence he recorded in 635 pages of handwritten notes." The foreman stated that "[t]here were lessons to be learned, but (Shell) didn't (learn them) because it saw money to be made in selling the product." After the jury verdict establishing liability, but before the jury could assess monetary damages, the companies settled the case for $60 million.

Oil Companies Knew MTBE Was a Threat to Water Supplies

Even though MTBE was not classified as a potential cause of cancer in humans until 1995, refiners knew much earlier that its powerfully foul taste and smell meant that small concentrations could render water undrinkable, and that once it got into water supplies it was all but impossible to clean up. A Shell hydrogeologist testified in the South Lake Tahoe case that he first dealt with an MTBE spill in 1980 in Rockaway, N.J., where seven MTBE plumes were leaking from underground storage tanks. [Excerpt | Full document] By 1981, when the Shell scientist wrote an internal report on the Rockaway plumes, the joke inside Shell was that MTBE really stood for "Most Things Biodegrade Easier." Later, other versions of the joke circulated, including "Menace Threatening Our Bountiful Environment," or apropos to the present attempt to limit liability, "Major Threat to Better Earnings." [Excerpt | Full document] and [Excerpt | Full document]

In 1983, Shell was one of at least nine companies surveyed by a task force of the American Petroleum Institute on "the environmental fate and health effects" of MTBE and other oxygenates. Shell's Environmental Affairs department replied to the trade association: "In our spill situation the MTBE was detectable (by drinking) in 7 to 15 parts per billion *so even if it were not a factor to health,* it still had to be removed to below the detectable amount in order to use the water." (emphasis added). [View document] The survey, the results of which were later distributed to all API members, asked for information about the number and extent of spills, chemical analysis of the spill and the contaminated water, and health effects to people in the community.

Clearly, Shell was not the only company that knew about MTBE problems. An environmental engineer for ExxonMobil (the companies merged in 1999) testified that he learned of MTBE contamination from Exxon gasoline in 1980, when a tank leak in Jacksonville, Maryland, fouled wells for a planned subdivision. The ExxonMobil engineer said it was learned MTBE had also leaked into the subdivision's wells from a Gulf and an Amoco station. [View document]

Storage Tanks Were Known to be Leaking in the 1970s and 1980s

Refiners also knew that underground gasoline storage tanks were susceptible to leaks, a fact that would amplify the problem with MTBE. In 1973, an Exxon report on the problem said: "The subject of underground leaks at service stations is one of growing concern to gasoline marketers. Large sums of money, time, and effort are exhausted on a continuing basis in the location and detection of leaking tanks and lines." [Excerpt | Full document]

In 1981, an ARCO memo said leaking tanks were "a major problem.... The issue is essentially a health/safety and environmental one. Escaping vapors can seep into basements, sewers and conduits, creating not only a nuisance but the danger of explosion and/or fire. Escaping gasoline also enters and pollutes the water table. (Groundwater is a major source of the U.S. water supply.) Certain chemicals in gasoline (namely the aromatics like benzene) may be carcinogenic or toxic in certain quantities." [View document]

By 1980, Exxon had an annual testing program for tanks and found that 27 percent were leaking; two years later the failure rate was up to 38 percent. [View document] In 1981, Shell and ARCO, the first refiners to add MTBE, estimated that 20 percent of all U.S. underground storage tanks were leaking. [View document] Five years later, in 1986, the EPA concurred. [Excerpt | Full document] Prior knowledge of the extent of leaking gasoline storage tanks was a major part of South Lake Tahoe's case: Fully aware that tanks were leaking, the petrochemical industry nonetheless introduced an additive known to rapidly percolate down to groundwater from gasoline distribution systems with known leaks. Efforts were ongoing to upgrade storage tank systems, but when industry learned quickly that the new tanks were still leaking, it continued to expand the use of MTBE anyway.

The Industry, not the EPA, Promoted MTBE as an Oxygenate

Recently disclosed court documents clearly show that the oil companies, not state or federal regulators, were the boosters of MTBE. The industry developed and promoted the concept of using reformulated gasoline to reduce air emissions, assuring the EPA that reformulated gasoline would be better than other options being considered. ARCO Chemical Co.'s Manager of Business Development from 1987 to 1998 testified: "What I recall is the EPA actually promoting using methanol blends... and the refining industry said here's another option... we can reformulate gasoline to reduce the emissions... that would be equal to or better than you would get by substituting or mandating the use of methanol vehicles... [T]he oil industry... brought this forward as an alternative to what the EPA had initially proposed." He continued, "The EPA did not initiate reformulated gasoline." [Excerpt | Full document]

Well before EPA mandated reformulated gasoline in 1992, the oil industry was aggressively promoting MTBE. According to the American Petroleum Institute, refiners were adding an average of 74,000 barrels of MTBE to gasoline per day from 1986 through 1991, roughly one third of the peak amount added to gasoline in 1998. [View document]

In 1987, a representative of ARCO Chemical (later absorbed by Lyondell), which was rapidly expanding its MTBE production, testified before the Colorado Air Quality Control Commission that the additive would reduce emissions and improve gas mileage, that supply and price were no barrier, and that consumers didn't need to be warned about the presence of MTBE in gasoline. [Excerpt | Full document] Nothing was said about the leak and contamination problems that ARCO and the rest of the industry had known about for at least seven years. ARCO's representative testified that in the 1980s he played a similar role in "assisting" the states of Arizona and Nevada in the development of oxygenate programs – programs that resulted in those states adopting MTBE. [Excerpt | Full document]

The Industry Attacked Safety Studies and Withheld Information From Regulators

In 1986, the Maine Department of Environmental Protection published a report documenting extensive MTBE groundwater contamination in the state. The authors identified MTBE as a "rapidly spreading groundwater contaminant" and discussed the option that "MTBE could be abandoned as an additive in gasoline stored underground" or that gas with MTBE "be stored only in double-contained facilities." [Excerpt | Full document] The Maine Paper was perhaps the earliest warning from government health officials about the dangers of MTBE. To the oil companies, it was a call to arms. Documents show that even as they were internally disseminating this study and treating its findings seriously, the oil companies joined forces to attack the study's authors and the article's "damage" in an effort to discredit their findings and downplay the risks of MTBE.

The industry disinformation effort began even before publication of the paper. A 1987 ARCO memo details the continued attack on the authors and their research:

> "We initially became involved with the Maine DEP prior to the presentation of their first version of this paper at the National Well Water Conference on November 13, 1986... Since the paper was presented last November, we have been working with API, the newly formed MTBE Committee [of the Oxygenated Fuels Association], and on our view to assess the potential impact of this paper on state policymakers [and] to contain the potential 'damage' from this paper...." [View document]

The memo goes on to explain how the Maine Petroleum Council, the state affiliate of the API, was preparing a paper claiming that MTBE didn't speed up the spread of benzene in water, that MTBE "only spreads slightly further" than benzene and other contaminants, and that MTBE could be easily removed from water with existing technology – none of which is true. Internally, however, the industry admitted the Maine paper was a scientifically credible threat. A 1987 letter from an ARCO refining executive to his Unocal counterpart admits the MTBE task force didn't "have any data to refute comments made in the paper that MTBE may spread further in a plume or may be more difficult to remove/clean up than other gasoline constituents." [View document]

In 1987, at the same time that ARCO and API were leading the attack on the Maine Paper, EPA issued a request to the industry for "more information on the presence and persistence of MTBE in groundwater." As reported in 2001 by the *San*

Francisco Chronicle and *The Sacramento Bee*, ARCO responded: "Where gasoline containing MTBE is stored at refineries, terminals or service stations, there is little information on MTBE in groundwater. We feel that there are no unique handling problems when gasoline containing MTBE is compared to hydrocarbon-only gasoline." [View document]

Internal Memos Warning Against MTBE Were Ignored

There were voices within the industry that warned against the use of MTBE, on grounds both of public health and cleanup costs from the inevitable leaks. A document dated April 3, 1984 from an Exxon employee said:

> "[W]e have ethical and environmental concerns that are not too well defined at this point; e.g., (1) possible leakage of [storage] tanks into underground water systems of a gasoline component that is soluble in water to a much greater extent [than other chemicals], (2) potential necessity of treating water bottoms as a 'hazardous waste,' [and] (3) delivery of a fuel to our customers that potentially provides *poorer* fuel economy.... " (Emphasis added.) [View document]

That same year, an Exxon engineer wrote the first in a series of memos outlining "reasons MTBE could add to ground water incident costs and adverse public exposure:"

> "Based on higher mobility and taste/odor characteristics of MTBE, Exxon's experiences with contaminations in Maryland and our knowledge of Shell's experience with MTBE contamination incidents, the number of well contamination incidents is estimated to increase three times following the widespread introduction of MTBE into Exxon gasoline...." Later, the document notes: "Any increase in potential groundwater contamination will also increase risk exposure to major incidents." [Excerpt | Full document]

An Exxon memo from 1985 discusses MTBE's "much higher aqueous solubility" than benzene and other gasoline components:

> "This can be a factor in instances where underground storage tanks develop a leak which ultimately may find its way to the underground aquifer. When these compounds dissolve in ground water and migrate through the soil matrix they separate into distinct plumes. MTBE creates the most mobile of the common

> gasoline plumes. MTBE is not a known carcinogen like Benzene however we can be required by public health agencies to remove it based on its taste and odor characteristics." [View document]

Thus, it is clear that the oil industry was not only well aware of the fact the MTBE is extremely soluble, mobile, and persistent, but that leaks could and had seriously contaminated water sources, well before the Clean Air Act Amendments of 1990.

PART 4:
Clean Water Act Protections Should Not be Undermined

Congress should not exempt oil and gas companies from stormwater controls under the Clean Water Act as proposed in last year's energy bill. Stormwater runoff can cause excessive sediment flow into waterways, harming drinking water supplies and aquatic life. According to the 1998 National Water Quality Report to Congress, "Siltation is one of the leading pollution problems in the nation's rivers and streams. Over the long term, unchecked siltation can alter habitat with profound adverse effects on aquatic life. In the short term, silt can kill fish directly, destroy spawning beds, and increase water turbidity." (p. 68). In addition to runoff, at oil and gas production sites there is the additional problem of toxics including benzene, toluene and heavy metals. Construction of new drilling pads, pipelines and roads are often interspersed with existing ones where oil and waste products are present, and can be easily disturbed and enter our water sources.

Stormwater permits are therefore critical to protect clean water. The permits provide the mechanism to ensure that companies employ best management practices to limit the harm their activities impose on water quality. The Clean Water Act requires permits for stormwater discharges associated with industrial activity. 33 U.S.C. § 1342(p)(3)(A). Construction is an industrial activity. EPA regulations mandate that all construction activities that disturb greater than one acre of land obtain stormwater permits. 40 C.F.R. §§ 122.26(b)(14)(x); 122.26(b)(15)(i); 122.26(e)(8). While the CWA currently contains an exemption from stormwater controls for oil, gas and mining *operations*, this exemption does not include *construction* of new sites prior to operation or construction of new roads or drilling pads at existing sites.

The permitting requirements are not onerous. The states generally issue permits under authority delegated from EPA. They rely in large part on general permits and the implementation of best management practices, many of which have been available for years. If the stormwater permit requirements are waived, oil and gas companies would not need to do anything to address the significant pollution of Western streams that their construction is causing.

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DRAFT ENERGY BILL WOULD WEAKEN CLEAN AIR PROTECTION

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The proposed Energy Policy Act would allow waiver of stronger anti-smog requirements in polluted cities that miss clean air deadlines. The result would be to substantially weaken the 1990 Clean Air Act, and delay measures that are sorely needed to protect the health of millions of Americans.

The 1990 Clean Air Act, signed by the first President Bush, classifies cities that violate ozone (smog) standards as marginal, moderate, serious or severe based on the severity and persistence of their pollution problem. Areas with higher classifications are given more time to meet standards, but also have to adopt stronger anti-pollution measures. Where a city misses its clean air deadline, it must be reclassified ("bumped up") to the next highest classification. It is then given more time to meet standards, but must also adopt the stronger pollution controls required for the higher classification. Congress adopted this graduated approach to air pollution control after the failure of less protective approaches under the 1970 and 1977 versions of the Clean Air Act. In transmitting his proposal to Congress to amend the Act in 1988, President Bush said that "progress has not come quickly enough and much remains to be done."

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The Act's graduated pollution control scheme continues to play a key role as EPA moves to implement its new, more protective 8-hour health standard for ozone. According to the agency, some 159 million Americans live in areas where air quality does not meet the new standard. People living in these areas face increased risk of infection, aggravation of asthma, and significant decreases in lung function due to ozone pollution. Children and senior citizens are at special risk. New studies have also linked ozone exposure with death by stroke, premature death among people with severe asthma, cardiac birth defects, and reduced lung-function growth in children.

Implementation of the new 8-hour standard has already been delayed for more than seven years by litigation and EPA foot-dragging. Given the urgency of the problem, strong pollution controls and clear deadlines are now essential. Unfortunately, the proposed Energy Policy Act would move things in precisely the opposite direction. Section 1443 of the proposal would allow polluted cities to delay compliance with clean air health standards for potentially a decade or more. These cities could continue to violate standards long after current deadlines without being bumped up, and without adopting the stronger pollution controls required under the 1990 Clean Air Act.

Specifically the bill would waive deadlines and stronger pollution controls in cities that receive air pollution transported from either: i) any area with a later attainment date; or ii) an area subject to an EPA requirement to reduce transported pollution. The "downwind" city does not have to show that transported pollution prevents it from attaining standards – only that transported pollution makes a "significant" contribution – a term that EPA has read liberally in the past. Under a multi-factor test used by EPA in another context, an upwind area could contribute as little as 3% to downwind nonattainment and still be found to "significantly" contribute. Thus, the bill would let communities delay stronger clean air measures that are urgently needed to protect public health even when most of their pollution problem is locally generated.

Further, the bill sets no fixed date, outside deadline for downwind cities to meet standards, once they get a waiver. Rather, they can wait until "the last reductions in pollution transport necessary for attainment in the downwind area are required to be achieved by the upwind area or areas." This vague language would replace the clear deadlines in current law with an amorphous, undefined test that hinges on how much reduction in pollution transport is "necessary" for downwind areas to attain. It would likely lead to an almost endless game of finger pointing, where polluted cities are constantly seeking to extend deadlines and avoid stronger controls by saying that sources in other states are not doing enough to reduce pollution transport.

The bill would not only seek to waive stronger air pollution controls in the future, but also weaken *existing* anti-smog requirements. Specifically, the bill would allow its waiver provisions to be applied retroactively to rescind bump ups that occurred as long as 18 months ago under the pre-existing one-hour ozone standard. Polluted cities like Atlanta, Georgia, and Beaumont, Texas could potentially qualify for this roll back in clean air protections. These cities were bumped up only after they fell years behind schedule in meeting clean air deadlines set under the 1990 Act. Both have substantial local sources of pollution, and both are "nonattainment" for both the 1-hour and 8-hour ozone standards. Relaxing pollution control requirements for such cities would needlessly endanger children, asthmatics, seniors, and others who are breathing unhealthful air. It would allow these cities to have weaker pollution controls than those long required in places like New York, Philadelphia, and Baltimore – all of which receive substantial amounts of pollution transported from other states.

For these and other reasons, Republicans as well as Democrats have opposed the deadline waiver concept embodied in section 1443. When EPA implemented a similar policy administratively in the late 1990's (a policy ultimately invalidated by the courts), the State of New York, under a Republican administration, objected. The State noted the inequity of allowing some states to avoid achieving timely clean air while other states like New York – also affected by transported – were already undertaking necessary, effective control steps:

> "[T]hese more effective control steps [required for higher nonattainment classifications] already have been implemented in many areas of the country and have been proven to reduce the emissions of ozone precursors. Implementation of these measures would help level the playing field among the states, provide some localized relief of ozone levels, and help the affected areas in their efforts to achieve the revised eight-hour ozone standard."[1]

In 1999, the State of Ohio, also under a Republican administration, criticized this same attainment date extension policy and approach:

> "U.S. EPA is rewriting one of the most important and substantive measures placed in the 1990 CAA. . . . ."
>
> "Ohio EPA does not believe that the CAA intended that extensions be granted to areas which have not demonstrated attainment. In some cases, these areas have not implemented current CAA requirements and would not achieve the 1-hour ozone standard even after transport had been addressed. These areas need an additional level of local controls, which is the precise purpose of the bump-up provisions of the CAA."[2]

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[1] Letter from Carl Johnson, Deputy Commissioner, Office of Air & Waste Management, New York State DEC (April 16, 1999).

[2] Letter from Christopher Jones, Director, Ohio EPA, to EPA Air & Radiation Docket (April 27, 1999).

Thus, the type of pollution control roll back proposed in the Energy Bill would harm the public health of citizens locally and regionally by delaying stronger pollution abatement measures needed to meet clean air standards.

The Clean Air Act already has provisions to deal with the problem of transported pollution. Section 110(a)(2)(D) of the Act requires each state implementation plan (SIP) to contain adequate provisions to bar emissions that contribute significantly to nonattainment in any other State. Section 110(a)(2)(H)(ii) allows EPA to direct states to strengthen controls on transported pollution where EPA finds that existing controls are substantially inadequate. Section 126 of the Act gives states the right to petition EPA for action to address transported pollution. EPA used some of these provisions to adopt its 1998 "NOx SIP call," which required steps to cut transport of nitrous oxides (an ozone-forming pollutant) from 22 states and the District of Columbia (D.C.). 63 Fed. Reg. 57356 (1998). Last year, the agency relied on the same provisions in proposing its Clean Air Interstate Rule, which would require additional measures to cut transport of nitrous oxides from 29 states and D.C. 69 Fed. Reg. 4566 (2004). The current law also provides for waiver of bump ups in "rural transport areas" where local pollution sources do not contribute significantly to the local nonattainment problem. Under section 182(h) of the Act, these areas need only adopt the pollution controls required for "marginal" areas, the least stringent classification

The current law therefore provides a responsible framework for addressing transported pollution while maintaining strong state and local anti-pollution efforts. States must curtail emissions that contribute to downwind nonattainment, and EPA can step in if they do not. At the same time, each nonattainment area must do all it reasonably can to limit its own pollution, with progressively stronger measures if clean air deadlines are missed.

Weakening the Act's pollution control requirements will only make it harder for communities to meet health standards and prolong the exposure of people throughout the nation to dangerously polluted air. The delays and roll backs proposed in section 1443 of the energy bill would represent a giant step backward in our national effort to protect the lungs of all Americans.

Mr. HALL. Thank you, sir. Again, another member of the panel, not unaccustomed to the ways of the Hill, Vice President of Governmental Relations of IPAA, worked on the U.S. Senate Committee on Environment and Public Works and was a Minority Staff Director, served under former Senator Lloyd Benson, a long-time friend of the Chairman of this committee and of many of us. I recognize you for 5 minutes.

STATEMENT OF LEE FULLER

Mr. FULLER. Thank you, Mr. Chairman. Mr. Chairman, members of the subcommittee, I appreciate the opportunity to testify today. Independent producers drill 90 percent of domestic oil and natural gas wells, produce approximately 85 percent of domestic natural gas, and produce about 65 percent of domestic oil, well above that percentage in the lower 48 States. This testimony will focus on the importance of improving the conditions necessary to develop natural gas.

Natural gas has become a clear energy policy focal point because it represents an energy source that is dominated by domestic supply and an energy need that can affect hundreds of thousands of American jobs in key industries. It is a clean burning fuel that is essential to the American economy. However, the principle issues and policy actions raise in this testimony are similarly applicable to crude oil, a natural resource that can be developed more fully and a resource that can shift international actions with wide-ranging domestic, economic, and security implications.

Developing domestic natural gas supply will be an essential component to meet future natural gas demand. This challenge requires action by Congress to encourage and allow supply to be developed. Broadly stated, it will require access to the natural resource base, the capital to produce it, and a reasonable regulatory framework. Access to the national resource base is significantly dependent upon resources underlying Federal lands both onshore and off shore. Access to onshore resources is constrained by a mosaic of restrictions that arise in the Federal leasing and permitting process. Some of these arise because of the complexity of the process and the failure to adequately fund the agencies that must administer it under increasingly more complicated standards. Others, however, are a result of plan's efforts to use the complexity of the process to delay or derail development.

Access to key offshore resources is prohibited by moratorium. These moratoria are a reflection of events that took place 36 years ago when the terrible offshore oil spill occurred near Santa Barbara. Thirty-six years ago, a man also landed on the moon. Today, we are sending remote satellites to the moons of Saturn, and we are using similarly advanced technologies to develop our offshore oil and natural gas resources. Yet today, we are arbitrarily foreclosing the development of critical national resources at a time when there can be no question that those resources are crucial to meeting key energy needs, key to the retention of thousands of important domestic jobs in essential manufacturing industries. Congress can no longer ignore the consequences of its failure to address this critical issue.

Domestic natural gas cannot be developed without adequate capital. A stable Federal permitting process is a key step. Without a belief that projects can be completed in a time certain, external capital will not be attracted to this inherently high-risk industry. Similarly, internal capital, income from production, is dependent in part on Federal tax policy and royal policy.

The regulatory framework must be well reasoned. Environmental management of natural gas production remains and important component of supply development; however, novel interpretations of Federal laws and burdensome procedural requirements that do not benefit the environment must be avoided. For example, interpretations of regulations of hydraulic fracturing under the Safe Drinking Water Act and of storm water management during construction of exploration and productionsites under the Clean Water Act are clearly at odds with the intent of these laws. Federal environmental regulatory policies and procedures can determine the success or failure of independent producers. Providing a balanced, predicable, and well-reasoned Federal framework is essential.

Finally, development of the resource base, whether onshore of offshore, requires the continual development of the technology to find and produce it. The dramatic and environmentally protective successes in the offshore would not have been possible without research and development funding. The new geological and geophysical exploration tools in the onshore started with Federal research. Adequate funding or Federal energy research and development activities is essential to continue this progress. federally funded research and development programs have enabled industry to exact more gas from more geologically complex formations, yet in a more environmentally sensitive manner.

Unfortunately, these Federal research programs have been threatened in recent years and likely will continue to be; their value will be understated in the budget process. As the domestic industry has shifted more to independents, historic funding sources for R&D are largely extinguished. Congress needs to support these Federal research programs.

Comprehensive energy legislation has been pending before Congress since 2001. Each passing year has shown that the failure to address this key national issue has resulted in increasingly more serious energy challenges. The legislation developed and almost passed in the 108th Congress is not a perfect solution; no bill will be. However, its provisions built an important framework. Passing legislation with these elements may not be a sufficient step, but it is a necessary one. Congress needs to enact these steps to allow it to take the next ones. Thank you.

[The prepared statement of Lee Fuller follows:]

PREPARED STATEMENT OF LEE FULLER ON BEHALF OF THE INDEPENDENT PETROLEUM ASSOCIATION OF AMERICA

The Independent Petroleum Association Of America, The International Association Of Drilling Contractors; The International Association of Geophysical Contractors; The National Stripper Well Association; The Petroleum Equipment Suppliers Association; The Association Of Energy Service Companies; and California Independent Petroleum Association; Colorado Oil & Gas Association; East Texas Producers & Royalty Owners Association; Eastern Kansas Oil & Gas Association; Florida Independent Petroleum Association ; Illinois Oil & Gas Association; Independent Oil & Gas Association of New York; Independent Oil & Gas Association of Pennsylvania; Independent Oil & Gas Association of West Virginia; Independent Oil Producers Association Tri-State; Independent Petroleum Association of Mountain States; Independent Petroleum Association of New Mexico; Indiana Oil & Gas Association; Kansas Independent Oil & Gas Association; Kentucky Oil & Gas Association; Louisiana Independent Oil & Gas Association; Michigan Oil & Gas Association; Mississippi Independent Producers & Royalty Association; Montana Oil & Gas Association; National Association of Royalty Owners; Nebraska Independent Oil & Gas Association; New Mexico Oil & Gas Association; New York State Oil Producers Association; Northern Alliance of Energy Producers; Ohio Oil & Gas Association; Oklahoma Independent Petroleum Association; Panhandle Producers & Royalty Owners Association; Pennsylvania Oil & Gas Association; Permian Basin Petroleum Association; Petroleum Association of Wyoming; Tennessee Oil & Gas Association; Texas Alliance of Energy Producers; Texas Independent Producers and Royalty Owners; Virginia Oil & Gas Association; and the Wyoming Independent Producers Association

This testimony is submitted on behalf of the Independent Petroleum Association of America (IPAA), the International Association of Drilling Contractors (IADC), the International Association of Geophysical Contractors (IAGC), the National Stripper Well Association (NSWA), the Petroleum Equipment Suppliers Association (PESA), the Association of Energy Service Companies (AESC), and 35 cooperating state and regional oil and gas associations. These organizations represent petroleum and natural gas producers, the segment of the industry that is affected the most when national energy policy does not recognize the importance of our own domestic resources. Independent producers drill 90 percent of domestic oil and natural gas wells, produce approximately 85 percent of domestic natural gas, and produce about 65 percent of domestic oil—well above that percentage of the oil in the lower 48 states. This testimony will focus on the importance of improving the conditions necessary to develop domestic natural gas. Natural gas has become a clear energy policy focal point because it represents both an energy source that is dominated by domestic supply and an energy need that can affect hundreds of thousands of American jobs in key industries. It is a clean burning fuel that is essential to the American economy. However, the principal issues and policy actions raised in this testimony are similarly applicable to crude oil—a national resource that can be developed more fully and a resource that can shift international actions with wide ranging domestic economic and security implications.

OVERVIEW

Developing domestic natural gas supply will be an essential component to meet future domestic natural gas demand. This challenge requires action by Congress to encourage and allow supply to be developed. Broadly stated, it will require access to the national resource base, the capital to produce it, and a reasonable regulatory framework.

Access to the national resource base is significantly dependent upon resources underlying federal lands, both onshore and offshore. Access to onshore resources is constrained by a mosaic of restrictions that arise in the federal leasing and permitting process. Some of these arise because of the complexity of the process and the failure to adequately fund the agencies that must administer it under increasingly more complicated standards. Others, however, are a result of planned efforts to use the complexity of the process to delay or derail development. Access to key offshore resources is prohibited by moratoria.

Domestic natural gas cannot be developed without adequate capital. A stable federal permitting process is a key step. Without a belief that projects can be completed in a time certain, external capital will not be attracted to this inherently high risk industry. Similarly, internal capital—income from production—is dependent in part on federal tax policy and royalty policy.

The regulatory framework must be well reasoned. Environmental management of natural gas production remains an important component of supply development. However, novel interpretations of federal law and burdensome procedural requirements that do not benefit the environment must be avoided. For example, interpretations of the regulation of hydraulic fracturing under the Safe Drinking Water Act and of stormwater management during construction of exploration and production sites under the Clean Water Act are clearly at odds with the intent of these laws.

INCREASING DOMESTIC NATURAL GAS SUPPLY

Access to the federal resource base is the biggest challenge to developing domestic natural gas supplies both onshore and offshore. Some development opponents have suggested that access to the resource base is not an issue; they are wrong. For example, in 2003, the Department of Interior released a study on federal lands in the Intermountain West. It showed that 12 percent of natural gas resources were completely off limits. But, it also identified another 26-27 percent of the resources that were constrained by restrictions ranging from no surface occupancy to constraints on when development can occur. Collectively, close to 40 percent of the resource base is restricted. The remaining 60 percent is not restricted at the time of leasing, but can be limited as part of the federal permitting process and, obviously, producers must obtain a permit to develop the lease.

Some development opponents have argued that the existence of differences between the leases granted and those being developed, between the permits issued and wells being drilled suggest that leasing and permitting activities should slow. Natural gas exploration and production is not a "just in time" business. A viable natural gas project requires numerous factors to come together—leases need to be obtained that cover the potential scope of the "play", permits need to be obtained, exploration must be done, drilling rigs must be scheduled consistent with the limitations of the lease and/or permit. Each of these takes time and each depends on the prior action. Not all leases will be developed because the exploration process may show them to be undesirable or the reserve may be found to exist only under certain portions of the total lease group. This has always been the case, but when a snapshot of conditions is used to suggest lack of effort, it can only be characterized as misleading at best. Take, for example, the recent comparison between the permitting of 6,100 wells in Fiscal Year 2004 compared to spudding of 2,700 wells. One obvious issue is whether it is appropriate to compare these actions in the same fiscal year. It would be more reasonable to compare new wells to permits in the prior year, where the number would be 3,800 permits in Fiscal Year 2003. Additionally, nothing in these raw number comparisons addresses whether the leases where the permits were issued or the permits limit when drilling can occur. Many parts of the Intermountain West have habitat management constraints that create such limits and most of the permits are in those states. And, it is important to recognize that drilling rigs and drilling labor are inelastic. There must be a sense that sustainable activity is likely before the service industry can expand its capacity. The oil price crisis of 1998-99 resulted in a loss of 65,000 jobs in the E&P industry that has not been completely replaced. The persistent leasing and permitting challenges of the past several years has not generated the sense of sustainability that is necessary to expand this industry segment.

In the offshore, moratoria in the Eastern Gulf of Mexico, the Atlantic Ocean, and the Pacific Ocean prohibit access to over 70 trillion cubic feet of potential natural gas—a conservative estimate. Without access, these national resources are lost.

Onshore, challenges are largely wrapped up in the federal land management, leasing, and permitting process. At the heart of this challenge is the fundamental question of how the federal government makes its decisions. In large part, addressing this question involves the role of the National Environmental Policy Act (NEPA). NEPA has become the most significant visible factor in the federal decision-making process.

When NEPA passed, at issue was the need to include environmental implications in the factors that the federal government considered as it made decisions. NEPA's purpose was to assure that all stakeholders had the opportunity to participate in the federal decision-making process. NEPA is a vague statute passed in 1969 and largely unchanged since then. Its implementation has essentially been driven by Executive Orders and judicial decisions. Now, it has become the vehicle for multi-volume Environmental Impact Statements that can be triggered at several points in the federal permitting process—the development of Resource Management Plans, the leasing process, and at times during the Application for Permits to Drill (APD).

Opponents of development understand that NEPA and other federal procedural requirements offer opportunities for delay. Delay in making decisions can have a critical impact on development. Producers must replace their production to account for the natural decline rate, a rate for natural gas that is now approximately 28 percent per year and increasing. Federal lands offer the most cost effective potential reserves to develop. Other basins are mature and require greater effort such as deep gas development to compete. These are more costly projects. Producers must reinvest their capital continuously and cannot allow it to stagnate because of permitting delays. Consequently, development opponents have embarked on a strategy to abuse the federal process by challenging decisions at every opportunity in both administrative adjudication procedures and the courts.

NEPA and the other federal processes were intended to assure that all factors were considered in making decisions; they were not created to prevent decisions.

Congress needs to develop a mechanism to expedite federal approval of natural gas projects while the nation faces current serious supply and demand challenges. Such

an approach should assure that proper environmental factors are considered and addressed but should limit the opportunity to abuse the federal decision-making process to delay decisions.

Adequate funding to conduct the federal planning, leasing, and permitting process is essential to meet the challenge of developing domestic natural gas. While agencies like the Bureau of Land Management (BLM) and the Minerals Management Service (MMS) bear the greatest of these responsibilities, other federal agencies that must provide consultation and concurrence are similarly important. Moreover, during the past several years the BLM has faced diversion of its resources to respond to challenges to its decisions that diminish its principle functions.

Lack of funds contributes to permitting backlogs and uncertainty regarding the time in which permits will be approved. For example, during the past several years the BLM has been aggressively acting to reduce permit backlogs and provide timely action on permit applications. However, without continuing funding support the BLM will not be able to maintain the quality of this effort. Moreover, it is essential that funding translates into adequate staffing to meet the challenges of the permitting process and that it be directed to execution of the leasing and permitting process. Some progress has been made to improve the interaction between agencies and within agencies through the President's Energy Permit Streamlining Task Force, but this type of effort needs to continue. Similarly, regulatory agencies need to establish time limits to complete the approvals and use a goal-oriented measurement to determine if their efforts are achieving the goals.

Congress should assure that the federal planning, leasing, and permitting process receives funding to meet its responsibilities including funding for the ancillary agencies that must support these efforts.

Congress should pass the provisions in the H.R. 6 Conference Agreement requiring federal permits to be resolved in a timely manner after receipt.

A particular example showing the implications of limited funding relates to the development of NEPA-related documents during the federal process. NEPA's requirements that the federal government evaluate the environmental implications of federal actions places the responsibility for developing the documents needed for these decisions on the federal agency. However, because of inadequate federal funding, producers have been compelled to fund the development of these documents in order for the agency to have them and complete its decision. Congress purposely chose to make the development of NEPA documents a federal responsibility. It should not shift to the private sector because of a failure to adequately fund the federal process; but it has. Producers have no choice if they want expeditious action on their project. An equitable resolution of this situation is needed.

Congress should pass the provision in the H.R. 6 Conference Agreement that allows producers to be reimbursed from future federal royalties for the costs of financing these federally required studies if adequate federal funding is unavailable.

Offshore, challenges are driven by the moratoria on access to key portions of the federal offshore. These moratoria—both legislative and executive branch—are unreasonable. They rely on antiquated and inaccurate assessments of the risks of developing offshore resources. Current offshore development technology ranks with the most sophisticated in the world. It allows for rapid responses to potential environmental threats. As described in the 1999 Department of Energy report, *Environmental Benefits of Advanced Oil and Gas Exploration and Production Technology*:

> In the event of a well control emergency, advanced "intelligent" subsea trees allow live wells to be shut in quickly under a variety of well conditions and operational circumstances. Moreover, current measurementwhiledrilling technology enables drillers to accurately steer a deepwater relief well to regain well control if necessary.

The use of these technologies has produced a record of success over the past decades. *Our Ocean Future,* prepared for the International Year of the Ocean in 1998 reported:

> The number of significant spills from oil production in state and federal waters has been low, and the volume of oil spilled has declined fairly steadily over the years (Minerals Management Service, 1997). There has not been a spill larger than 1,000 barrels from oil and gas platforms on the outer continental shelf since 1980; in fact, natural seeps introduce approximately 100 times more oil into U.S. marine waters than do spills from offshore development and production activities. Increased precautions by industry, enhanced safety technologies (e.g., blowout prevention systems, shut-in valves), and strict adherence to government regulations most likely have minimized the risk of oil spills from offshore activities.

The U.S. Commission on Ocean Policy report, *An Ocean Blueprint for the 21st Century,* reiterates this assessment:

According to MMS, 97 percent of OCS spills are one barrel or less in volume and U.S. OCS offshore facilities and pipelines accounted for only 2 percent of the volume of oil released into U.S. waters for the period 1985-2001 (Figure 24.3). The total volume and number of such spills over that period have been significantly declining due to industry safety practices and improved spill prevention technology. By comparison, the National Research Council (NRC) estimated that 690,000 barrels of oil enter North American ocean waters each year from land-based human activities, and another 1,118,000 barrels result from natural seeps emanating from the seafloor.

A review of the MMS publication, *OCS Oil Spill Facts* (September 2002), shows that no platform in the Outer Continental Shelf has generated a 1000 barrel oil spill over the 20 year period from 1980 through 2000.

These facts can be ignored no longer. The national need for natural gas to sustain and grow its economy and meet its environmental objectives compels a realistic consideration of its offshore resources. Coastal states have real concerns about the consequences of offshore development. Their opposition—where it occurs—is not founded on risks based on current offshore technology. Nonetheless, this opposition must be addressed.

Given the very significant potential resources on the Outer Continental Shelf lands currently off limits by congressional and Executive Branch moratoria to exploration, development and production of natural gas and crude oil, Congress should put in place a process to:

- *Begin lifting of moratoria; and,*
- *Allow states to share in revenues generated by federal lease bonuses and royalties in proportion to the amount of leasing and production that occurs off their coasts.*

Finally, development of the resource base—whether onshore or offshore—requires the continual development of the technology to find and produce it. The dramatic and environmentally protective successes in the offshore would not have been possible without research and development (R&D) funding. The new geological and geophysical exploration tools in the onshore started with federal research. Adequate funding of fossil energy research and development activities is essential to continue this progress. Federally funded research and development programs have enabled industry to extract more gas from more geologically complex formations, yet in a more environmentally sensitive manner. Unfortunately, these federal research programs have been threatened in recent years and likely will continue to be; their value will be understated in the budget process. Congress needs to support these federal research programs. As the domestic industry has shifted more to independents, historic funding sources for R&D are largely extinguished.

Congress should continue to adequately fund vitally important oil and gas R&D programs.

LIQUEFIED NATURAL GAS

Liquefied Natural Gas (LNG) will be an increasingly important supply component to meet domestic—and international—demand for natural gas. LNG must be considered a supplement to domestic natural gas production—not an alternative. The National Petroleum Council's 2003 Natural Gas study, *Balancing Natural Gas Policy—Fueling the Demands of a Growing Economy,* presented three Findings that state well the situation.

> Traditional North American producing areas will provide 75% of long-term U.S. gas needs, but will be unable to meet projected demand.
>
> Increased access to U.S. resources (excluding designated wilderness areas and national parks) could save consumers $300 billion in natural gas costs over the next 20 years.
>
> New, large-scale resources such as LNG and Arctic gas are available and could meet 2025 % of demand, but are higher-cost, have longer lead times, and face major barriers to development.

The NPC Study goes on to state: A balanced future that includes increased energy efficiency, immediate development of new resources, and flexibility in fuel choice, could save $1 trillion in U.S. natural gas costs over the next 20 years. Public policy must support these objectives.

Congress needs to recognize the essential need to create these balanced solutions as it considers future natural gas policy.

natural gas infrastructure

To encourage construction of necessary energy infrastructure, the Federal Energy Regulatory Commission (FERC) should be the lead agency in the regulatory process.

Specifically, FERC's record in the certification process should be the exclusive record for any administrative appeals. Other relevant government agencies would be involved in the process concurrent with FERC, possibly avoiding administrative and judicial appeals or, at a minimum, shortening the time needed for review. While market-based rates may be appropriate for some new interstate infrastructure development, FERC should continue to apply its cost-based rate regulations to pipelines with market power. With appropriate FERC oversight, producers can be assured of the ability to get gas to market via interstate pipelines at fair prices and under non-discriminatory terms and conditions.

ENVIRONMENTAL REGULATORY ISSUES

Dual environmental challenges confront the expansion of domestic natural gas supplies during the exploration and production (E&P) phase. The first relates to specific regulatory requirements; the second involves the federal decision-making process. This latter issue was addressed under Increasing Domestic Natural Gas Supply.

In general, natural gas E&P operations must address the costs of environmental regulation compliance largely driven by federal laws. However, several compliance issues pose significant threats to the development of future supply.

First, potential federal regulation of hydraulic fracturing well stimulation practices would affect new natural gas development, particularly in nonconventional gas plays. Hydraulic fracturing is a technique used to allow natural gas and oil to move more freely from the rock pores where they are trapped to a producing well that can bring them to the surface. The technology was developed in the late 1940s and has been continuously improved and applied since that time.

Application of hydraulic fracturing to increase recovery is estimated to account for 30 percent of U.S. recoverable oil and gas reserves and has been responsible for the addition of more than 7 billion barrels of oil and 600 trillion cubic feet of natural gas to meet the nation's energy needs. The National Petroleum Council estimates that 60 to 80 percent of all the wells drilled in the next decade to meet natural gas demand will require fracturing.

Congress enacted the Safe Drinking Water Act (SDWA) in 1974. By then, hydraulic fracturing had been used for 25 years with no environmental problems. State permitting programs regulated it to assure its safe use. Under the Act, states developed extensive Underground Injection Control (UIC) programs to manage liquid wastes and the reinjection of produced waters. These programs addressed liquids intended to be injected and—to remain—in underground geologic formations.

At no time during these debates was there any suggestion of including hydraulic fracturing in the UIC waste management requirements. Yet, in the mid-1990s litigation challenged the Environmental Protection Agency's (EPA) failure to regulate hydraulic fracturing of coalbed methane under the SDWA. The 11th Circuit Court ruled against EPA but never addressed the environmental risks of hydraulic fracturing; it merely decided that the plain language of the statute includes hydraulic fracturing as underground injection. Years of further litigation has resulted in EPA requiring Alabama to regulate hydraulic fracturing of coalbed methane wells under its UIC program.

States are concerned about the implications of the court's decision. States recognize the large threat of the decision to state UIC regulatory programs. Currently, the two state organizations with the greatest involvement in oil and gas regulation—the Interstate Oil and Gas Compact Commission (IOGCC) and the Ground Water Protection Council (GWPC)—support the need for legislation to resolve the issue and return the SDWA to its original intent.

Meanwhile, EPA initiated a study of coalbed methane hydraulic fracturing environmental risks. EPA limited its study to coalbed methane partly because the court cases were directed toward coalbed operations and partly because, if hydraulic fracturing environmental risks existed, they would occur in the shallow coalbed fields. In June 2004, EPA released the results of its study. Its results were straightforward. "Based on the information collected and reviewed, EPA has concluded that the injection of hydraulic fracturing fluids into coalbed methane wells poses little or no threat to USDWs and does not justify additional study at this time."

The H.R. 6 Conference Agreement provided a straightforward resolution to the regulatory uncertainty facing hydraulic fracturing. The 109th Congress should adopt it.

A second regulatory issue posing significant implications for the E&P industry is the regulation of stormwater discharges during construction of its facilities. The 1987 Clean Water Act (CWA) included two stormwater provisions that are now intertwined regarding their application to oil and natural gas E&P operations. The first provision—Section 402(l)(2)—excludes uncontaminated stormwater from oil and natural gas E&P operations from the National Pollutant Discharge Elimination System (NPDES) permitting process. The second subsection—Section 402(p)—directs the EPA to permit municipal and industrial stormwater discharges.

In 1992, EPA promulgated stormwater construction permitting regulations affecting construction sites greater than five acres. In *Natural Resources Defense Council v. Environmental Protection Agency (NRDC v EPA),* the Court concluded that EPA had been arbitrary and capricious in proposing a one acre limit and finalizing the regulations at five acres. Following this litigation EPA developed stormwater construction permitting regulations in two Phases. Phase I covered sites greater than five acres; Phase II covers sites from one to five acres. During this period EPA also issued a guidance document in one Region that the stormwater construction regulations applied to the construction of E&P operations. This guidance is inconsistent with the intent of the law. Congress was clear that E&P operations should be regulated based on the nature of its discharge, not the mere act of construction.

The consequences of EPA's action are significant. Most oil and natural gas E&P sites fall within the one to five acre range. The Energy Information Administration reports that over 31,500 wells were drilled in the first eleven months of 2004. Over 10,000 were in Texas and Oklahoma. To meet future natural gas demand, the National Petroleum Council estimates that the number of natural gas wells alone needs to increase to approximately 48,000 wells annually. EPA's approach is inappropriate for oil and gas facilities; it is oriented for subdivision and shopping center projects. Oil and gas production operations involve the leasing of surface rights, construction occurs within a matter of weeks, and timing is critical because it involves obtaining a drilling rig that must be carefully scheduled and is paid for based on the number of days it is in use. Disruption in this process can place entire projects and substantial capital at risk. A new analysis by the Department of Energy concludes that these EPA regulations could cost the country between 1.3 and 3.9 billion barrels of domestic oil production and between 15 and 45 trillion cubic feet of domestic natural gas production over the next 20 years.

H.R. 6 included a provision to clarify this regulatory process by directing that regulation occur under subsection 402(l). It needs to be enacted by the 109th Congress.

Third, the Coastal Zone Management Act (CZMA) and its consistency provisions have a long history of impeding energy exploration, development and production at essentially every step of the process. The CZMA created a national program designed to encourage the States to develop programs to manage and balance competing uses of and impacts to coastal resources. The law was designed to enhance communications between federal agencies responsible for permitting activities on Federal lands and coastal states to minimize or eliminate conflicts with approved State goals and programs. It was viewed as a positive law designed to help resolve issues.

However, regulatory implementation and States' misuse of the consistency provisions of the CZMA have created uncertainty and have impeded federal offshore exploration and production projects as well as the siting of onshore and offshore energy infrastructure. Some coastal management policies conflict with the CZMA law, prohibiting siting of onshore and offshore infrastructure in the state coastal zone and on federal lands.

The National Oceanic and Atmospheric Administration's (NOAA) revised CZMA federal consistency regulations expand the ability for a state to use its coastal management program to impede federal permitting involving proposed activities that occur in federal waters off the coasts of other States. States have blocked or delayed federal offshore energy activities far outside of their coastal waters through unreasonable application of the CZMA consistency provisions. The Secretary of Commerce has not acted in a timely manner to make decisions on consistency appeals, thus making the appeals process last many years.

The H.R. 6 Conference Agreement included provisions to resolve these conflicts revising the CZMA consistency review process and bring its implementation into harmony with Congress's original goals. These changes should be passed by the 109th Congress.

Fourth, habitat management, particularly those related to the Endangered Species Act, can pose a significant challenge to natural gas development primarily on federal lands. Lease stipulations and permit restrictions that limit either the time or the location for development can effectively prevent access to the resource base. These restrictions need to be carefully crafted to balance the protection of wildlife habitat with the need to develop domestic natural gas. Both the temporal and spatial restrictions need to be essential to protect the wildlife. Similarly, the listing process of the Endangered Species Act and the subsequent constraints need to be based on sound science.

The H.R. 6 Conference Agreement included provisions to improve the coordination between agencies in the federal leasing and permitting process that need to be enhanced. The House Committee on Resources reported legislation to improve the procedures of the Endangered Species Act that need to be considered by the 109th Congress.

Fifth, when Congress passed the 1990 Clean Air Act Amendments, it decided that multiple oil and natural gas wells could not be aggregated to treat them as a single stationary source. It rejected efforts to consolidate these separate facilities—often owned by different companies. However, technically, the definition is within the hazardous air pollutants title of the Act and needs to be clarified.

Congress should clarify that oil and natural gas wells cannot be aggregated to treat them as a single stationary source for all purposes under the Clean Air Act.

Sixth, the Clean Water Act currently provides authority for the regulation of produced waters associated with natural gas development that are discharged to the environment. This authority is adequate and does not need to be altered.

Congress should reject efforts to alter the Clean Water Act produced water authority.

Seventh, offshore development requires the development of geological and geophysical data. Use of the equipment to develop this information has raised concerns about the effects of its sounds on marine mammals. The Marine Mammals Protection Act (MMPA) addresses harassment of marine mammals and incidental takings. However, its provisions are imprecise.

If Congress reauthorizes MMPA, it should address the definition of "harassment" under the Act and modify the Incidental Takings provisions to make the Act more responsive to genuine protection of marine mammals while considering the importance of human activities.

DIVERSIFICATION AND CONSERVATION

While conservation and efficiency measures and diversification of energy sources present opportunities to reduce natural gas demand, it is important to avoid policy options that deter the development of new supply. The Fuel Use Act of 1978 was one of the worst policy choices that could have been made. It rejected a market-based approach to resource development. It created disincentives to develop domestic natural gas resources. The objective of national energy policy should be to enhance energy availability including natural gas.

TAX INCENTIVES

Federal tax policy has played an important role in encouraging the development of domestic oil and natural gas resources essentially since the inception of the income tax. After successfully creating tax incentives to develop these resources, Congress then began to systematically reduce them. At the same time the Internal Revenue Service (IRS) has interpreted the remaining tax provisions to reduce their effectiveness. Looking forward, there are a number of areas where tax reforms could benefit the development of domestic natural gas.

Independent producers develop 90 percent of domestic wells and produce 85 percent of domestic natural gas. These producers principally generate the capital to expand their production through their revenues—through the wellhead. Consequently, to the degree that taxes reduce these revenues inappropriately, those funds cannot be reinvested in new exploration and production.

For example, development of new resources requires, in part, the development of geological and geophysical (G&G) data. G&G expenses include the costs incurred for geologists and geophysicists, seismic surveys, and the drilling of core holes. These surveys increasingly use 3-D technology rather than the conventional 2-D technology used for most of the last seven decades. Previously only very large companies were able to utilize this state-of-the-art, computer-intensive, 3-D technology because of its high cost and the considerable technical expertise it requires. However, as the costs of computer technology have declined, more and more domestic independent producers are making use of this technology. Still, while 3-D seismic provides a vastly superior tool for exploration, it is far more expensive than 2-D technology. 3-D seismic surveys usually cost between five or six times more per square mile onshore than the older technology and, in some instances can account for two-thirds of the costs of some wells. Encouraging use of this technology has many benefits:

- **More detailed information.** Conventional 2-D seismic is only able to identify large structural traps while 3-D seismic is able to pinpoint complex formations and stratigraphic plays. These are particularly important for developing nonconventional fuels.

- **Improved finding rates.** Producers are reporting 50-85% improvements in their finding rate. In prior years a producer might have to drill three to eight wells in order to find commercially viable production.
- **Reduced environmental impact.** Because the use of advanced seismic technology significantly improves the odds of drilling a commercially viable well on the first try, this reduces the number of wells that are drilled and, thus, reducing the footprint of the industry on the environment.
- **Investment capital.** Many investors are requiring producers to provide 3-D seismic surveys of potential development before committing their capital to the project in order to minimize their risk.

Currently, the IRS considers G&G costs nondeductible as ordinary and necessary business expenses but requires them to be treated as capital expenditures recovered through cost depletion over the life of the field. G&G expenditures allocated to abandoned prospects are deducted upon such abandonment.

These costs are an important and integral part of exploration and production for oil and natural gas. They affect the ability of domestic producers to engage in the exploration and development of our national oil and natural gas reserves. Thus, they are more in the nature of an ordinary and necessary cost of doing business.

These costs are similar to research and development costs for other industries. For those industries such costs are not only deductible but also a tax credit is available.

New exploration and development of natural gas resources is essential to address the current supply and demand challenges. Allowing the deduction of G&G costs would increase capital available for domestic exploration and production activity.

The technical "infrastructure" of the oil services industry, which includes geologists and engineers, has been moving into other industries due to reduced domestic exploration and production. Stimulating exploration and development activities would help rebuild the critical oil services industry.

Congress should act to clarify that G&G expenses can be expensed as other similar costs are treated in other industries.

Tax incentives to increase domestic development have a history of success. The nonconventional fuels tax credit (Section 29) resulted in increased development of natural gas sources that would not have otherwise occurred. Nonconventional gas sources—coalbed natural gas, tight formations, and shale formations—and deep conventional gas will need to be an essential component of domestic natural gas supply. The 2003 National Petroleum Council Natural Gas study reports that 35 percent of undiscovered resources will come from nonconventional sources.

While current natural gas prices are driving development activity now, the nation needs to be concerned about sustaining consistent development efforts. For example, while drilling activity increased dramatically when prices increased in 2000, it dropped significantly in 2001 when prices fell. Reduced drilling results in less supply and catching up takes time, thereby further pressuring the marketplace. Tax policies that would support domestic development would provide long-term benefits to the supply/demand balance.

Congress should examine tax policies that encourage domestic natural gas development, particularly nonconventional gas and deep conventional gas. These could include tax credits or deductions for actions that increase domestic natural gas development activity.

Additional tax policy provisions can further enhance domestic natural gas development.

- **Delay Rental Payments.** As a general rule, oil and natural gas exploration companies do not purchase the land on which they intend to search for minerals but instead lease the land and agree to pay royalties as the minerals, if any, are produced. A typical lease expires in one year unless exploration has begun or the lessee pays the lessor a fee for the privilege of deferring the commencement of exploration or production on the leased property. A host of legitimate reasons exist that may prevent oil and gas exploration companies from currently developing certain properties, and "delay rentals" are the payments made to retain the leases on those properties. For decades, it remained uncontested that lessees could elect to currently deduct these payments. However, during the 1990s, the IRS began to take the position that these payments must be capitalized and generally recovered through cost depletion over the life of the lease. Legislation clarifying the current deductibility of these payments would bring much-needed simplification by reducing the burdensome and costly compliance requirements associated with capitalizing these expenditures. In turn, these lower costs would help encourage new domestic natural gas production by making more money available for capital investment.

- **Net Income Limitation on Percentage Depletion.** Congress has suspended the property taxable income limitation on percentage depletion for marginal wells through 2005. The suspension that was in place in 1998 and 1999 saved many marginal wells during the price crisis. This provision should be permanently eliminated to provide domestic producers of these wells an incentive not to shut down these wells. Once the well is closed, the potential to produce the remaining reserves is lost forever.
- **Net Taxable Income Limit.** The H.R. 6 Conference Agreement tax title would have also suspended the 65 percent net overall taxable income limit on percentage depletion. This constraint on independent producers limits the amount of capital that can be retained for reinvestment into existing and new production. In an industry that typically reinvests its profits back into it operations, this constraint means less domestic natural gas. It too should be eliminated.
- **Percentage Depletion Rates and Limits.** The number of independent producers qualifying for percentage depletion has decreased. Percentage depletion has been further limited as a result of mergers and acquisitions of the various producers as they seek ways of reducing their costs, consolidating production fields, and operating more efficiently. However, percentage depletion remains very important to the small producer with marginal well production. Limiting the number of barrels qualifying for percentage depletion and artificially lowering the rate in a declining industry is counterproductive. Increasing the number of barrels qualifying and/or increasing the depletion rate would help the small independent develop resources more effectively
- **Intangible Drilling Costs (IDC).** Despite great advances in geological and geophysical know-how and technology, drilling a well is still the only means of determining with absolute certainty the presence of hydrocarbons in reservoir rock or sand. Once a discovery is made, a series of wells may be required to produce the underground deposit economically. The well costs with no salvage value are called "intangible drilling and development costs' or IDC ("since they produce nothing "tangible" but only a hole in the ground"). These intangible costs include the amounts paid for labor, fuel, materials and necessary technical services such as clearing ground, road making, surveying and constructing such physical structures as are necessary for the production of oil and gas. IDC represent the normal day-to-day costs of doing business for an oil and gas exploration and production company. For exploratory and development wells, IDC account for approximately 90% and 70% of total costs, respectively. About 60% of an offshore production platform are IDC.

  The preference for IDC from oil and gas wells does not apply to taxpayers who are independent producers with the following limitation: If the taxpayer's Alternative Minimum Tax (AMT) IDC exceed the taxpayer's AMT income by 40%, the excess is a preference item. The IDC preference should be eliminated for independent oil and gas producers.

Collectively, these provisions would further enhance domestic natural gas development by providing more capital for producers.

Congress should consider enactment of these capital enhancing tax provisions. Equally important, they must be crafted in such a manner to assure that the AMT does not nullify the benefits that they would create. The mistake of 1986 should not be repeated.

INVESTMENT

Oil and natural gas exploration and production—despite significant technological advances—remains a capital intensive, high risk business. Yet, it does not historically yield high returns. At the same time, it must compete for capital with higher yielding, lower risk investments. Domestic production opportunities must also compete against the lure of foreign, lower cost opportunities.

One factor that encourages investment in natural gas production is a sense of certainty that projects can be completed—and completed in a predictable time. Many of the issues described in the previous questions address federal government practices that generate uncertainty. Congressional action to improve the pace of federal actions and, more importantly, to improve the predictability of a successful outcome are an essential element to attract more investment into development of natural gas supplies.

Financial factors play a similarly significant role. Early on, after the creation of the federal income tax, the treatment of costs associated with the exploration and development of this critical national resource helped attract capital and retain it, despite its risk. Allowing the expensing of geological and geophysical costs and percentage depletion rates of 27.5 percent are examples of policy decisions that resulted in the United States' extensive development of its petroleum and natural gas.

But, the converse is equally true. By 1969, Congress reduced the depletion rate and later eliminated it for all producers except independents. However, even for independents, the rate was dropped to 15 percent and allowed for only the first 1000 barrels per day of petroleum (or natural gas equivalent) produced. A higher rate is allowed for marginal wells (— 15 barrels/day or 90 mcf/d) which increases as the petroleum price drops, but even this is constrained—in the underlying code—by net income limitations and net taxable income limits. In the Windfall Profits Tax, federal tax policy extracted some $44 billion from the industry that could have otherwise been invested in more production. Then, in 1986 as the industry was trying to recover from the last long petroleum price drop before the 1998-99 crisis, federal tax policy was changed to create the Alternative Minimum Tax that sucked millions more dollars from the exploration and production of petroleum and natural gas. These changes have discouraged capital from flowing toward this industry.

Even now, in the midst of the current challenges to increase domestic natural gas production, tax policy options remain controversial because of these prior actions. Additionally, they may be constrained by the federal budget process.

Thus, another continuing challenge to draw investment to the E&P component of the natural gas industry will be assuring the capital marketplace and investors that a reasonable return can be obtained relative to the risk the venture poses. Absent use of federal tax policy, there are limited but useful federal options to support domestic E&P investment.

The Deep Water Royalty Relief Act provided royalty incentives to encourage production in the deep water portions of the Gulf of Mexico. All estimates indicate that it has been a highly successful effort. Similar royalty incentives have been implemented for the development of deep natural gas formations in the shallow waters of the Outer Continental Shelf. These royalty incentives work because they provide producers with a better potential economic return for the risk they are taking in these frontier developments. They attract investment.

Congress should continue its support for offshore royalty incentives by enacting provisions from the H.R. 6 Conference Agreement with updates reflecting the passage of time.

The economic pressures on E&P companies to increase their production and reserves, to generate the capital necessary for additional development, and to demonstrate their ability to compete in the marketplace have compelled a consolidation in the industry. Mergers and acquisitions have always been part of the E&P industry, but they have intensified over the past decade. One aspect of these mergers has been the aggregation of federal lease acreage under one company's control that exceeds the allowable acreage limit. Without some alteration of the current acreage limitations, companies will be reluctant to expand their efforts on federal lands if the possibility exists that they may later be faced with divesting themselves of profitable properties. Industry understands the importance of providing for broad opportunities to develop the federal resource base. Consequently, there is a consensus that properties where production already exists should not be subject to the acreage limitation.

Congress should enact the provision of the H.R. 6 Conference Agreement that exempts "held by production" acreage from the federal acreage limitations.

Another element of the H.R. 6 Conference Agreement provided for marginal well royalty relief on federal lands when prices are low. This provision does not directly encourage new investment in natural gas production, but it does encourage production from both onshore and offshore wells during times of economic distress. It builds on existing provisions that have helped maintain domestic onshore oil production from federal lands.

Congress should adopt this safety net for federal natural gas production.

Ultimately, a stable natural gas market with prices that are adequate to provide acceptable returns will draw investment to natural gas exploration and production. Congress can support this effort through tax policies and royalty incentives that encourage such investment.

FERC AND EIA NATURAL GAS MARKET DATA

The current voluntary system by which industry participants report pricing data to index developers works. While confidence in the integrity of natural gas price indices was undermined by the inappropriate activities of some gas traders, the efforts by industry, the FERC, and the Commodity Futures Trading Commission (CFTC) have resulted in increased accuracy, reliability, and transparency of wholesale energy prices.

A balanced, workable framework for natural gas price reporting has developed, and FERC continues to exercise its oversight authority. FERC has taken an active interest in the process by which price indices reflect and influence the formation of wholesale prices for natural gas and electricity. After hosting technical conferences, issuing a policy statement on standards for price index developers and market participants, conducting surveys of industry practices in price reporting, and issuing a staff report, FERC approved an order on November 19, 2004, directing staff to continue to monitor price formation in wholesale markets. In the order, FERC reports on improvement in (a) the amount of transaction data being reported to index developers, (b) the processes by which market participants provide data to index developers; (c) the amount and quality of information provided by indices, and (d) the confidence market participants currently have in price indices.

Specifically, one of the index publishers, Platts, reported that volumes and transactions for its monthly gas survey from February through June 2004 increased 35 and 38 percent, respectively, from 2003 levels. In the daily gas survey, Platts stated that the number of natural gas transactions reported in May 2004 was double that of November 2002. Another index publisher, Intelligence Press/NGI reported that 13 of the top 20 trading companies are reporting or plan to begin reporting, and that these 13 companies represent 96 percent of the volumes traded by the top 20 firms. Nearly two-thirds of the companies that report to index developers now report through a department independent from trading. The number of companies conducting annual independent audits of their price reporting practices has risen from 5 percent to 58 percent. Index developers now provide more information in their indices. Because of these improvements, the overall average level of confidence in price indices is 6.93 on a scale of one to ten. The confidence level for gas utilities is even higher, at 7.49. Industrials, as exemplified by the Process Gas Consumers group, noted that their "faith in the price indices has been strengthened by the events of the past two years."

The CFTC amended its larger-trader reporting rules to raise contract-reporting levels and subsequently will alter the number of reportable positions and the information provided by those positions in its weekly Commitments of Traders reports. The new final rules become effective January 20, 2005.

While the focus on market data has centered on pricing information, the accuracy of storage data has been in the headlines since the Energy Information Administration (EIA) issued its weekly storage report on November 24, 2004. In that report, EIA reported a storage withdrawal that greatly exceeded market expectations, and subsequently issued a downward correction from 49 Bcf to 17 Bcf. Based on preliminary investigation, it appears that this error was administrative in nature, not the result of market manipulation. The operator submitting the incorrect data has revised its system for reporting to EIA to ensure the accuracy of future reports. It is likely that other operators also will review their reporting systems to ensure that accurate data is submitted to EIA.

The Committee needs to look beyond the concerns with storage data and market information to the underlying issues of adequacy of storage capacity and natural gas supply availability. The focus on market data stems from actual manipulation, which has been curbed through oversight, and from volatility that naturally arises in a commodity market where supply and demand are not in balance.

Some industry participants have called on the CFTC to put in place more limited "stops" for natural gas trading. Under current NYMEX rules, a $3/MMBtu change in price results in a stop in trading for 5 minutes. Those advocating tighter stops compare this unfavorably with stops on the beef exchange, where a movement of 1.5 cents results in a stop in trading for 24 hours. This proposal should not be adopted.

- The current stop of $3 is reasonable for natural gas; the cattle market is not as volatile, so 1.5 cents is reasonable for that commodity.
- If you place limits on NYMEX trading, parties will go to the over-the-counter market. This is particularly true for natural gas, which does not have substitutes and is a necessity.
- Limits are intended to prevent a runaway market, not to alleviate volatility.
- NYMEX keeps prices honest.
- Stops wreak havoc with contract expirations.

While market oversight and transparency are important to assure the trading activities are legal and understandable, natural gas—like it or not—now trades through commodity markets. By their very nature, commodity markets, like stock markets, are inherently subject to volatility. Volatility can be diminished by greater transparency or greater storage capacity, but it cannot be eliminated.

Congress should not enact legislation to interfere with a market that is responding to the need to control its abuse by past practices. Existing governmental authority is adequate to address these improper practices.

CONCLUSION

Comprehensive energy legislation has been pending before Congress since 2001. Each passing year has shown that the failure to address this key national issue has resulted in increasingly more serious energy challenges. The legislation developed and almost passed in the 108th Congress is not a perfect solution; no bill will be. However, its provisions built an important framework. Passing legislation with these elements may not be a sufficient step, but it is a necessary one. Congress needs to enact these steps to allow it to take the next ones.

Mr. HALL. Thank you. And the Chair recognizes, now, the Chairman of Board and Chief Executive Officer of New Jersey Resources and its principal subsidiary New Jersey Natural Gas. He served as Director, and in 2005 was Chairman of the American Gas Association, and trustee of the American Gas Foundation. I recognize Mr. Downes for 5 minutes, sir.

STATEMENT OF LAURENCE M. DOWNES

Mr. DOWNES. Thank you, Mr. Chairman. Good morning, and good morning, members of the Committee. Thanks for the opportunity to be here today. As you noted, I am here today on behalf of the American Gas Association, but also as a CEO of a local distribution company. The AGA, as you might know, has 195 members. We are the national trade association that represents America's natural gas utilities. Collectively, our members provide lifeline services to more than 56 million customers; so in essence, we are the face to the customer.

First of all, I want to say thank you for your leadership in addressing what is the most pressing issue that faces our industry today, ensuring reasonably priced natural gas for America's natural gas customers.

Natural gas is America's preferred fuel for homes and businesses, in large measure because of its environmental advantages. We believe that the Nation's energy needs require a 2-prong attack on this problem: first, to increase supply, but also to promote energy efficiency. We all know that demand for natural gas is growing. We know that supply is struggling to keep up. The result has been prices that are high and volatile. Our 56 million customers are bearing the burden and prompt action must be taken. What should we do? Today, I would like to suggest to you 4 areas.

First of all, we must make an objective reassessment of restricted Federal lands and streamline Federal permitting processes. The fact is there are large tracts of Federal lands that are currently restricted for resource activity. The limitations that were put in place may have been appropriate when put in place decades ago; but today, technology allows for the development of our Nation's resources in an environmentally sensitive way. We must also look at the limitations which remain necessary for protecting our environment and look at those which do not.

In addition, current permitting processes seriously delay producer's ability to develop our Nation's ample resource base. Given our energy needs, we need to expedite these procedures. Second, we need to ensure that an Alaskan natural gas pipeline is constructed and that LNG supplies are increased. We applaud Congress for passing the package of provision last fall that were needed to jump start the Alaskan pipeline, which could play a major role in our Nation's long-term supply picture.

We also urge Congress to enact provisions that will expedite and streamline the building of LNG import facilities, which will be a necessary step in bringing prices down.

Third, we must reaffirm our strong commitment to environmental values. Natural gas is the cleanest of the fossil fuels, and it is in great demand. And natural gas can be the bridge to a future that will rely more heavily on renewables.

Now, it is sometimes suggested that our industry seeks a relaxation or a loosening of our Nation's environmental values. That is simply not the case. In fact, our commitment to the environment has never been stronger, and we also recognize that all of our suggested initiative must be undertaken with the highest level of environmental sensitivity.

Finally, energy efficiency is as much an answer to our problems as is increasing gas supply. The difficulties that we face in our industry today cannot be solved simply by increasing supply. In fact, there is no single solution. As a result, we must also improve energy efficiency because a unit of natural gas conserved benefits customers at least as much as a new unit of natural gas produced. In fact, when you look at our industry over the last quarter-century, the average residential household has reduced its natural gas consumption by 25 percent.

But more needs to be done. At the State level, many of our member companies are exploring regulatory strategies to encourage greater efficiency and conservation. But apart from that, here in Washington, we need to change how energy efficiency is measured and not ignore huge energy losses.

Now, you may ask, what are those energy losses? They are the energy lost between the time when energy-producing raw material is extracted and when it is ultimately delivered to the customer. Existing Federal energy efficiency legislation should be amended to require that energy efficiency is measured on a full fuel-cycle and full life-cycle basis from wellhead to burner tip, from the source to the electric appliance.

In summary, we can determine how this problem is solved. It is not an issue of inadequate resources. It is an issue of making the right policy choices. We can choose to have plentiful, clean supplies of natural gas at affordable prices. We can choose to have economic growth and robust employment. That decision is in your hands. Our customers are counting on us.

Thank you very much.

[The prepared statement of Laurence M. Downes follows:]

PREPARED STATEMENT OF LAURENCE M. DOWNES, CHAIRMAN, AMERICAN GAS ASSOCIATION

THE GAS SUPPLY, INFRASTRUCTURE AND EFFICIENCY CHALLENGE

My name is Laurence M. Downes. I am Chairman and Chief Executive Officer of New Jersey Resources, which operates a natural gas utility in New Jersey that provides service to more than 455,000 customers. I am also the Chairman of the American Gas Association (AGA), which represents approximately 200 local energy utility companies that deliver natural gas to more than 56 million homes, businesses and industries throughout the United States. Natural gas currently meets one-fourth of the United States' energy needs, and it is the fastest growing major energy source. As a result, adequate supplies of competitively priced natural gas are of critical importance to AGA and its member companies. Similarly, ample supplies of reasonably priced natural gas are of critical importance to the millions of customers that AGA members serve. AGA speaks for those customers as well as its member companies.

The natural gas industry is at a critical crossroads. Natural gas prices were relatively low and very stable for most of the 1980s and 1990s, largely as a result of ample supplies of natural gas. Wholesale natural gas prices during this period tended to fluctuate around $2 per million Btus (MMBtu). But the balance between supply and demand has become very tight since then, and, therefore, even small changes in weather, economic activity, or world energy trends have resulted in significant wholesale natural gas price fluctuations.

Market conditions have changed significantly since the winter of 2000-2001. Today our industry no longer enjoys prodigious supply; rather, it treads a supply tightrope, bringing with it unpleasant and undesirable economic and political consequences—most importantly high prices and higher price volatility. Both consequences strain natural gas customers—residential, commercial, industrial and electricity generators.

Since the beginning of 2003, the circumstances in which our industry finds itself have become plainly evident through significantly higher natural gas prices. Natural gas prices have consistently hovered in the range of $5-6 or more per MMBtu in most wholesale markets. In some areas where pipeline transportation constraints exist, prices have skyrocketed for short periods of time to $70 per MMBtu. Simply put, natural gas prices are high and volatile, and the marketplace is predicting that they will stay high. At this point there is no significant debate among analysts as to this state of affairs. Changing the current supply/demand balance requires continuing efforts aimed at energy efficiency as well as initiatives to provide more natural gas supply.

As this Committee well knows, energy is the lifeblood of our economy. More than 60 million Americans rely upon natural gas to heat their homes, and high prices are a serious drain on their pocketbooks. High, volatile natural gas prices also put America at a competitive disadvantage, cause plant closings, and idle workers. Directly or indirectly, natural gas is critical to every American.

The consensus of forecasters is that natural gas demand will increase steadily over the next two decades. This growth will occur because natural gas is the most environmentally friendly fossil fuel and is an economic, reliable, and homegrown source of energy. It is in the national interest that natural gas be available to serve the demands of the market. The federal government must address these issues and take prompt and appropriate steps to ensure that the nation has adequate supplies of natural gas at reasonable prices.

Many of the fields from which natural gas currently is being produced are mature. Over the last two decades, technological advances have greatly enhanced the ability to find natural gas as well as to produce the maximum amount possible from a field. While technology will undoubtedly continue to progress, technology alone will not be sufficient to maintain or increase our domestic production.

Today's tight natural gas markets have been a long time in coming, but there are still numerous unexploited sources of gas in the United States. We are not running out of natural gas; we are not running out of places to look for natural gas; we are running out of places where we are *allowed* to look for gas. The truth we must confront now is that, as a matter of policy, this country has chosen *not* to develop much of its natural gas resource base.

Without prudent elimination of some current restrictions on U.S. natural gas production, producers will struggle to increase, or even maintain current production levels in the Lower-48. This likely would expose 63 million homes, businesses, industries and electric-power generation plants that use natural gas to unnecessary levels of price volatility—thus harming the U.S. economy and threatening America's standard of living.

If America's needs for energy are to be met, there is no choice other than for exploration and production (E&P) activity to migrate into new, undeveloped areas. There is no question that the nation's natural gas resource base is rich and diverse. It is simply a matter of taking E&P activity to the many areas where we know natural gas exists. Regrettably, many of these areas—largely on federal lands—are either totally closed to exploration and development or are subject to so many restrictions that timely and economic development is not possible. As we contemplate taking these steps, it is important that all understand that the E&P business is—again as a result of technological improvements—enormously more environmentally friendly today than it was 25 years ago. In short, restrictions on land access that have been in place for many years need to be reevaluated if we are to address the nation's current and future energy needs.

This year, like the past several years, the most important step the entire Congress can take to address these pressing issues is to enact a comprehensive energy bill with provisions ensuring that lands where natural gas is believed to exist are available for environmentally sound exploration and development. Additionally, it is appropriate to create incentives to seek and produce this natural gas. These steps are necessary to help consumers and the economy.

The "Natural Gas Outlook to 2020" by the American Gas Foundation underscores all of these concerns. That study looks at anticipated natural gas demand and supply in the year 2020. The report expects that, if the nation continues on its present course, by 2020 natural gas prices will increase by 70 percent, reaching approximately $13.76. This is anticipated to lead to increased unemployment, plant closings, and the movement of industrial operations overseas, just as it has in the last several years. It also indicates that, in two alternative policy scenarios (the "expanded" and the "expected"), customers can save annually $200 billion or $120 billion when compared to going forward on a *status quo* basis.

THE GAS DEMAND OPPORTUNITY

While it may seem unduly elementary, it is important to remember that the market relies upon two countervailing forces to operate: supply and demand. Price is determined by the intersection of the two, and volatility, which has become a challenge for all energy stakeholders, is a result of the particular intersection of those two factors. As the discussion above notes, additional gas supply is both necessary and desirable. Nevertheless, we must continue to focus on the opportunities to serve the interests of customers presented by taking actions with regard to natural gas demand as well. In terms of the market and prices, a unit of natural gas not consumed is indistinguishable from a unit of natural gas produced and consumed. There clearly are opportunities for Congress to capitalize on this gas demand opportunity.

AGA is not, however, an advocate of government action that interferes with the operation of efficient markets. Nevertheless, there are opportunities where government policy can point the invisible hand in the right direction. There are at least three opportunities where government policy can allow us to capitalize on the demand opportunity. First, Congress can ensure that we as a nation utilize the best approach to our energy-efficiency analysis, by requiring that we look at efficiency on a full-fuel-cycle basis. Second, Congress can provide tax incentives for efficiency that require very modest public support but that will provide large efficiency gains. Third, we need to ensure that the interests of energy industry stakeholders are aligned with the goals of energy efficiency.

A brief summary of AGA's priorities in this regard is attached.

INCREASING DOMESTIC NATURAL GAS SUPPLY

The most important step in sustaining and increasing domestic natural gas production would be to look, with an environmentally sound eye, to develop new natural gas frontiers within the United States.

The United States possesses a resource base that is adequate for many more decades of energy production. Growth in production from this resource base is, however, jeopardized by limitations currently placed on access to it. For example, most of the gas resource base off the East and West Coasts of the U.S. and the Eastern Gulf of Mexico is currently closed to any exploration and production activity. Moreover, access to large portions of the Rocky Mountains is severely restricted. The potential for increased production of natural gas is severely constrained so long as these restrictions remain in place.

America is not running out of natural gas, and it is not running out of places to look for natural gas. America is running out of places where we are allowed to look for gas. The fields where we currently produce natural gas are mature. More and more effort is required to produce less and less gas with each well. Quite simply, there is no way, other than exploring for natural gas in new geographic areas, to meet America's anticipated demand for natural gas unless we turn increasingly to sources located outside North America.

The existing universal prohibitions on all E&P activity on the East Coast, the West Coast Coast, and the Eastern Gulf of Mexico must be reevaluated with an objective, dispassionate eye to determine if these areas can be explored without adverse environmental consequences.

A gigantic swath of federal lands, much of which is known to overlay large deposits of natural gas, has been placed off limits to *any* form of E&P activity, no matter how environmentally sound and sensitive. This blanket prohibition can no longer stand. The U.S. E&P industry has been transformed by technology over the last quarter century such that drilling for natural gas today is an entirely different venture compared to thirty or forty years ago. The nation's pressing need for energy to warm its homes and to supply its businesses mandates that we reevaluate this prohibition. A process must begin where individual offshore areas are evaluated to determine, with a dispassionate and objective eye, whether sound environmental stewardship continues to mandate the universal prohibition of E&P activity offshore under which we live today. AGA believes that such an analysis will reach the conclusion that some areas should remain off-limits, some areas should be made the subject of stringently controlled activity, and many areas can be safely explored with the latest environmentally friendly E&P techniques.

There are undoubtedly many avenues that could be followed to achieve this objective. AGA has recently reviewed the "SEACOR" proposal to restructure the current regulatory scheme for the offshore areas of the United States. That proposed legislative represents a sound and balanced means to begin the process of striking the environmental balances that the United States needs to undertake. Undoubtedly other proposals could harmonize the nation's energy needs with the protection of environmental values.

An integrated, omnibus review of restrictions in the Intermountain West must be undertaken to harmonize and rationalize overlapping and duplicative restrictions that make many areas effectively closed to E&P activity.

The Intermountain West has been, and is expected to continue to be, a growing supplier of natural gas. This can, however, only be the case if access to key prospects is not unduly impeded by stipulations and restrictions, which are often conflicting and overlapping. Two separate studies by the National Petroleum Council and the U.S. Department of the Interior have reached a similar conclusion—that nearly 40 percent of the gas resource base in the Intermountain West is restricted from development, in some cases partially and in some cases totally. On this issue, the Department of the Interior noted that there are nearly 1,000 different stipulations that can impede resource development on federal lands.

It is essential that energy needs be balanced with environmental impacts and that this evaluation be complete and up-to-date. Finding and producing natural gas is accomplished today through sophisticated technologies and methodologies that are cleaner, more efficient, and much more environmentally sound than those used in the 1970s. Many restrictions on natural gas production in the Intermountain West have simply not taken account of the important technological developments of the preceding thirty years. The result has been policies that deter and forestall increased usage of natural gas, which is, after all, the nation's most environmentally benign and cost-effective energy source.

Congress should mandate a from-the-ground-up review of the various restrictions and limitations applicable to federal lands in the West with the goal of rationalizing and harmonizing the restrictions and reviews currently involved.

Adequate authorizations and appropriations are essential for the various federal permitting agencies to perform their functions responsibly, efficiently, and promptly.

A number of federal agencies are charged with responsibility for reviewing and acting upon applications for permits for E&P activities. These include the Minerals Management Service, the Bureau of Land Management, the Fish & Wildlife Service, and Forest Service. AGA is aware of numerous instances where these agencies have not been able to perform their necessary functions in timely fashion simply for lack of fiscal resources. This represents an unnecessary and unwarranted barrier to sound energy and resource development. Fiscal resources that are miniscule in amount—when compared to the scope of so many federal programs—would, if applied here, provide major benefits for the nation's energy customers. AGA respectfully requests that Congress authorize and appropriate sufficient funds for these agencies to undertake their functions responsibly and in a reasonable time frame.

Streamlining and expediting permitting processes for E&P activities will assist in bringing forth additional natural gas supplies.

There is no question that improvements can be made in the processes for permitting associated with natural gas E&P activities. The November 18, 2003, conference report for the Energy Policy Act of 2003 contains an array of provisions aimed at making permitting processes more efficient (see, e.g., Sections 341-351). Enactment of these provisions by Congress would be a step toward increased natural gas production.

Similarly, a variety of provisions in Subtitle B of Title III would have the effect of improving the various administrative processes associated with E&P activities (see, e.g., Sections 312, 318, 319, 321, 322, 323, 325, 326, 327, 328, 329, 330). Enactment of these provisions would help bring forward additional natural gas supplies.

Adopt reasonable production incentives and royalty relief provisions. Without question tax incentives can help achieve both objectives. Perhaps the most dramatic example is the Section 29 tax credit. The Section 29 tax credit brought forth coal-bed methane supplies in numerous parts of the country. Today, that supply accounts for approximately 10 percent of U.S. natural gas consumption. The conference report for the Energy Policy Act of 2003 contained an array of incentives. *First,* that bill contained a number of royalty-relief provisions. (*See, e.g.,* Title II, Subtitle B, Sections 311-316.) These provisions were aimed at encouraging the more difficult types of exploration and production activity. *Second,* the bill contained a number of tax incentives aimed at spurring production. (*See, e.g.,* Title XIII, Subtitle C, Sections 1341-1348.) These measures were aimed at improving the cash flow of smaller producers or providing an incentive for several more difficult types of production. Incentives of this type, if reasonable in nature, are a constructive component of a balanced, comprehensive energy plan.

It is often reported that the energy industry focuses unduly upon producing more fossil fuels, The implication, stated or unstated, is that doing so is harmful to the environment as well as the nation's quality of life. What is almost universally overlooked in these reports is that natural gas is the cleanest of the fossil fuels. When burned, natural gas emits virtually no sulfur dioxide or particulate matter and emits far lower levels of nitrogen oxides, carbon monoxides, carbon dioxide, and reactive hydrocarbons than either coal or gasoline. It is critically important to keep these environmentally friendly characteristics of natural in mind when addressing the policy issues related to the production of natural gas.

As suggested above, the most important action that can be taken to bring new gas supplies to customers is opening to exploration and production the many areas throughout the United States that we know to contain significant natural gas resources. Many of these areas have been closed to exploration or have been made the subject of so many restrictions that they are de facto closed to exploration. At heart, these closures and restrictions are ostensibly grounded in environmental concerns. The nation needs to review these restrictions. Most importantly, it needs to review them with a contemporary view that reflects the fact that the exploration and production business is enormously more environmentally friendly today than was the case thirty or forty years ago. Equally importantly, these assessments must be made with an understanding of the importance of energy production to the nation, particularly as it bears upon economic prosperity and well being.

INCREASING THE SUPPLY OF LIQUEFIED NATURAL GAS

LNG will be an important source of supply, and, it will, even in modest quantities, have a significant effect upon natural gas prices.

Given the policy choices that the nation has previously made with regard to gas supply and with regard to land access, imported LNG will be an essential incremental supply of natural gas. Although several dozen such import projects have been announced, in all likelihood a far smaller number will actually be constructed. Even if only several projects are ultimately brought online, the impact of these imports upon U.S. natural gas prices will be material and significant. Accordingly, it would be sound policy for the government to take whatever actions it can to facilitate the siting and construction of LNG marine import terminals.

Congress should create certainty for LNG project developers by codifying FERC regulatory policy with regard to LNG and by reaffirming exclusive FERC jurisdiction over LNG import terminals.

The current process for siting LNG import terminals—with appropriate applications being submitted to FERC—is working efficiently. Over the past decade and a half, FERC has materially improved its processes for approving energy infrastructure. There is no need at present to interfere with that process.

Congress can, however, give encouragement to LNG project developers by codifying current FERC regulatory policy, announced in FERC's Hackberry orders, that LNG import terminals will be treated as if they were natural gas producers and will not be made subject to the open-access requirements imposed upon interstate natural gas pipelines. Doing so will provide certainty that will assist in the development of these projects. (The November 18, 2003, conference report for the Energy Policy Act of 2003, in Section 320, proposes to do just that.)

Additionally, Congress can take important action to reaffirm that FERC has exclusive jurisdiction under Section 3 of the Natural Gas Act over the facilities for the importation of LNG into the United States. Doing so will remove a cloud of uncertainty spawned by the Public Utilities Commission of the State of California, which is currently being addressed by the courts in *Californians for Renewable Energy v. FERC,* No. 04-73650 (Ninth Circuit).

INCREASING NATURAL GAS INFRASTRUCTURE

In the fall of 2005 Congress took the most important infrastructure action possible by approving the package of legislative provisions essential to spur construction of the Alaska natural gas transportation system. But further actions to this end are in order. Further actions, however, as suggested below, are in order.

Reduce the depreciation period for new gas distribution lines from 20 to 15 years. AGA anticipates that growing gas demand over the coming decades will require local natural gas utilities to construct approximately $100 billion in new infrastructure. Congress should facilitate this essential infrastructure by enacting accelerated tax depreciation for local gas distribution companies. (This provision was included as Section 1322 of the conference report for the Energy Policy Act of 2003.)

Adopt the infrastructure provisions contained in H.R. 6. The conference report for the Energy Policy Act of 2003 contained a number of other worthwhile provisions that would assist in ensuring that adequate natural gas infrastructure is available to serve the nation's natural gas customers. (Sections 321, 325, 326, 330, 341, 346, 347, 348, 349, 350, and 351.)

Improve federal permitting processes. A widespread difficulty with infrastructure permitting is the multiple layers of review required as part of the permitting process, even though FERC is generally the lead agency in the licensing process. The conference report on the Energy Policy Act of 2003 attempted to address some of those difficulties by mandating one record to be relied upon (Section 330) and by requiring deadlines in Coastal Zone Management Act proceedings (Section 325). The infrastructure problem is, however, broader than this, and broader solutions are required. A number of studies have documented the overlapping and conflicting review processes that are regularly involved in energy infrastructure permitting. At the federal level, the simple and elegant solution is to vest FERC with authority to oversee all ancillary permitting of interstate natural gas pipelines, whether state or federal, and to authorize it to require that ancillary reviews be undertake within a time certain. These multiple layers of review are perhaps the largest roadblocks in terms of time for interstate natural gas infrastructure, and they without question add costs to infrastructure—costs that are ultimately borne by customers.

THE IMPORTANCE OF FUEL DIVERSITY AND ENERGY EFFICIENCY

At present there is no significant ability to increase natural gas production in the very near term because production is essentially occurring at full capacity. In this context, additional demand—whether generated by weather or economic activity—produces great volatility in prices. In essence, in instances of additional demand the market rationalizes through price volatility.

In this context, only efficiency measures can, in the near term, moderate demand and, therefore, moderate prices. Market-driven conservation can have an impact in the short term, but true efficiency measures can only be effective in the longer term. Over the last twenty years, America's households have decreased their natural gas consumption 1% per year on average. Similarly, commercial and industrial concerns have made great strides in improving their efficiency. These trends will undoubtedly continue, but government can take steps to make quantum leaps in efficiency.

AGA strongly endorses addressing the nation's energy policy on a comprehensive basis, with energy efficiency playing an essential role. The conference report on the Energy Policy Act of 2003 includes a large number of energy efficiency provisions, addressed not only to natural gas but also to almost all fuel sources. Congress should move forward with these provisions as an integral element of a comprehensive energy bill. These relatively modest provisions can pay enormous dividends in the longer haul.

AGA also believes that the nation should rely upon a full portfolio of energy sources to meet its energy needs. A balanced portfolio of energy sources is in the national interest.

Adopt full fuel-cycle energy-efficiency analysis. Moreover, energy policy should seek to put each fuel to its most effective use. Regrettably our energy policy today is not founded upon this principle. In most instances, for example, on a life-cycle basis and from the perspective of allocative efficiency, natural gas is most efficient in direct-flame applications—space heating, cooking, and water heating. On a life cycle, full-fuel-cycle basis, electricity generally is considerably less efficient for these uses. Thus, by ignoring this fundamental precept, our energy policy today misallocates resources. Energy policy would make a great step forward in this regard by performing its analysis on a full-fuel-cycle, full life-cycle basis.

Congress should move forward in this realignment of the nation's approach to energy efficiency. To make federal energy usage measurement accurate, Congress should direct the federal agencies that sponsor promotional and rating programs for energy-efficient appliances, homes, and buildings (i.e., DOE, EPA Energy Star, etc.) to base those programs on total energy usage (in addition to measuring the energy usage at the site of consumption). All other things being equal, this shift would tend to shift gas toward direct flame applications and somewhat away from consumption in generating peak electricity, resulting in a more efficient usage of the nation's resources.

Adopt reasonable tax provisions that promote efficiency. Similarly, tax credits can lead to more efficient energy consumption. The conference report on the Energy Policy Act contains a number of tax provisions seeking to promote this end. Provisions of this type play an essential part in a balanced, comprehensive energy proposal.

Reliance on market forces. AGA also believes that government policy should not seek to interfere in the market decisions that result in the nation's energy portfolio. High natural gas prices as we are experiencing at the moment tend to produce calls for energy allocation schemes (for example, suggestions that government policy should affirmatively discourage the use of natural gas in the generation of electricity). Past events should provide ample proof that such calls, if accepted, always produce new, unintended, and unforeseen deleterious consequences. AGA believes that the market, if left unhindered, will produce a diverse and robust energy portfolio for the nation.

Encourage innovative gas utility regulatory structures that reward utilities for encouraging energy efficiency. Additionally, from the perspective of AGA and its members, the goals of energy efficiency are often ill served by the rate and cost recovery mechanisms employed at the retail level by local natural gas utilities. More often than not utility rates are designed on a volumetric basis, where utility efforts to encourage efficiency and reduce natural gas consumption result in financial harm to the utility. These traditional rate mechanisms run counter to public policies regarding energy efficiency. This need not be the case. Recently several states have adopted innovative rate structures that align the utility's economic interests and the goals of energy efficiency. Other state public utility commissions will soon be considering similar proposals. Adoption of these mechanisms should reduce natural gas consumption and reduce overall customer bills while allowing natural gas utilities to earn their authorized returns. Last year leading environmental and energy conservation organizations joined the American Gas Association in supporting such innovative gas utility proposals.

SUMMARY AND CONCLUSION

These are challenging times in the natural gas industry. Natural gas prices are both high and volatile. Natural gas customers across America are counting on our leadership to bring them a solution. It lies in taking action in Washington that encourages a three-part assault on the problem:

- Taking the necessary steps to allow and stimulate natural gas exploration and production off the East Coast, off the West Coast, in the eastern Gulf of Mexico, and in the Intermountain West
- Taking the necessary steps to stimulate and expedite the expansion of our natural gas infrastructure to bring natural gas to those Americans who want and need it
- Taking the necessary steps to stimulate new advances in energy efficiency

Mr. HALL. Thank you, and the Chair now recognizes Mr. Norlander, who is here on behalf of the National Association of

State Utility Consumer Advocates, the Executive Director of Pubic Utility Law Project of New York. I recognize you for 5 minutes, sir.

STATEMENT OF GERALD A. NORLANDER

Mr. NORLANDER. Thank you Chairman Hall and Chairman Barton and members of the subcommittee for this opportunity to be here today for the NASUCA. I am here, also, in my capacity as Director of Public Utility Law Project of Albany, New York. I am also chairman of the Electricity Committee of NASUCA. NASUCA is an association of 44 State consumer advocates across the country and District of Columbia. And some of the NASUCA members are from States that restructured their electric industries, as did New York and Texas and a number of others. Some members are from States that retain the traditional, vertically integrated electric utility system.

I speak today on behalf of all of NASCUA's members in opposition to much of the electricity title of the proposed Energy Policy Act of 2005. This unified opposition represents a national consensus of State consumer advocates from a variety of structures. And that consensus is that much of this bill, if enacted, would not materially advance, and could be detrimental to the public interest and interests of consumers. NASUCA does, however, support the provision in the bill that would require mandatory, enforceable liabilities standards throughout the transmission grid.

The primary purpose of the Federal Power Act of 1935 is the protection of consumer. Proposals to change it should be measured by whether they add meaningful protections or whether they erode the existing statutory bond the act creates with consumers. That bond is that all rates demanded and charged, that are subject to the Federal jurisdiction, will be just and reasonable. And they will be subject to review by the agency charged with setting and fixing the rates. Once that is done, those rates and charges are then, under the Supremacy Clause, pushed through to the retail level to consumers across the country. And so therefore, the test, again, should be whether the statute actually adds to or protects the protection that the customers have now.

The bill has a number of features in it. It has considerable language that would crate new rate incentives for transmission facilities. I discussed it at some length; we've put in evidence at a past hearing that this, essentially, would ratify a FERC initative underway that would add to transmissions rates to reward utilities for things like joining RTOs, to give extra money for building new facilities, and so forth. And we estimated that the FERC proposal would cost about $13 billion, and accordingly, have opposed it at FERC.

The bill actually sets up a system which provides for rate incentives, and then, at the end, I think it comes back to some confusion. There is a lack of clarity, because then it says that the rate incentives still must be just and reasonable. We think that under existing law, FERC already possesses sufficient flexibility in its ratemaking procedures to establish just and reasonable transmission rates that will duly reward investors and provide a reasonable rate of return necessary to see that the essential transmission grid development occurs.

Similarly, with transmission cost allocation, we think is a matter for FERC. FERC already has the tools it needs to set just and reasonable allocation of the cost of new transmission facilities.

NASUCA has opposed, consistently, the repeal of the Public Utility Holding Company Act. That, too, we believe, is a consumer statue. It perhaps accomplishes more by what it detours than by what it regulates, at least historically has done so. We think it is an essential protection that should be retained, and there are some problems with the residual powers given to States to get at the books of holding companies. We don't think they are broad enough, and accordingly, we don't think there is an adequate substitute for the existing statute.

Similarly, with FERC Merger Review Authority, the statute actually alters the traditional standard for review of mergers, and we don't see any reason to change that.

We are concerned with several measures that mentioned market transparency, contract sanctity, anti-manipulation. There is definitely a concern that market power will be exercised in electric markets. It is not a theoretical possibility; it has happened. Every market monitor notes the possibility. We think that the statute mentions rate transparency, but it actually gives FERC the power to make rates secret. FERC probably had the power, today, to require utilities to file their rates electronically, so that provision really adds nothing new.

Under contract sanctity, the proposed statute would essentially substitute contract sanctity for just and reasonable rate, and I believe that would ratify a FERC determination that it lacked the power to review for reasonableness a market-based rate that had never filed and had never been reviewed initially for reasonableness. And so I think that, again, that weakens it.

To conclude, the NASUCA believe that there is merit to the reliability provisions. That was the first recommendation of the U.S.-Canada Blackout Task Force, and that is where we think action should be taken. Thank you.

[The prepared statement of Gerald A. Norlander follows:]

PREPARED STATEMENT OF GERALD A. NORLANDER ON BEHALF OF NATIONAL ASSOCIATION OF STATE UTILITY CONSUMER ADVOCATES

Chairman Hall And Members Of The Subcommittee on Energy And Air Quality: Thank you for inviting me to testify today for the National Association of State Utility Consumer Advocates (NASUCA) regarding the proposed "Energy Policy Act of 2005: Ensuring Jobs for Our Future with Secure and Reliable Energy." I am Gerald Norlander, Executive Director of the Public Utility Law Project of New York, Inc. (PULP)[1] and Chairman of the NASUCA Electricity Committee.

NASUCA is a voluntary, national association of 44 consumer advocates in 42 states and the District of Columbia. NASUCA Members are designated by the laws of their respective jurisdictions to represent the interests of utility consumers before state and federal regulators and in the courts. Members operate independently from state utility commissions, as advocates primarily for residential ratepayers. NASUCA appreciates this opportunity to provide input to the subcommittee regarding utility consumer concerns before introduction of a new energy bill.

Some NASUCA Members are from states with traditional vertically integrated utility industry structures; others are from states like New York and Texas, where utilities sold their power plants to new owners and created single-state ISOs; others are from states whose utilities joined with others across state lines to form large

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[1] PULP is an Associate Member of NASUCA, with offices at 90 State Street, Suite 601, Albany, New York 12207.

RTOs. Today, I speak on behalf of all NASUCA members in opposition to a large portion of the Electricity Title of the discussion draft of a proposed Energy Policy Act of 2005. This unified opposition reflects a national consensus of state consumer advocates that much of the bill, if enacted, would not materially advance, and could be detrimental to, the public interest and the interests of consumers. NASUCA, however, does support the provisions in the Bill that would require mandatory enforceable reliability standards throughout the transmission grid.

STATUTORY RATE INCENTIVES FOR TRANSMISSION FACILITIES ARE UNNECESSARY

The proposed Energy Policy Act of 2005 bill would add a new Section 218 of the Federal Power Act requiring the Federal Energy Regulatory Commission (FERC) within one year to establish new rules for "incentive-based" rate treatments. This language appears to authorize a pending FERC proposal to increase interstate electricity transmission rate allowances which has been met with broad consumer opposition.[2] The pending FERC proposal is to allow automatic increases in the return on equity (ROE) for transmission investments, well beyond the level normally allowed in the development of just and reasonable rates. These ROE "adders" are intended to reward utilities for divesting control over their transmission assets to regional transmission organizations (RTOs), for outright divestiture of these assets to an "Independent Transmission Company," for construction work in progress and for new transmission facilities. Cooperating utilities will receive ROE bonuses, well above the normally calculated reasonable rate of return on equity invested, of 200 basis points—2%—for existing transmission facilities, and 300 basis points—3%—for new investments in transmission. Nothing in the proposed FERC rule requires any showing that these bonus-conferring actions are cost effective, and nothing in the proposed bill places any upper limit on the rate making incentives. In response to the FERC proposals for ROE "adders," NASUCA commissioned an examination of the cost and policy implications, and filed comments in the pending FERC proceeding. Those NASUCA comments, which are attached to my prior testimony in 2003 as an exhibit show that the current FERC initiative, if fully utilized by transmission owners, will cost consumers over $13 billion, or approximately $711 million per year for the 19 year time horizon in the FERC proposal. This is a conservative estimate of the potential cost of these investment incentives, and it virtually offsets the putative $725 million per year benefit of forming Regional Transmission Organizations, a benefit estimate that is controversial for its optimism. The $13 billion incentive—which might be authorized by the bill—is unnecessary and will provide no incremental benefit in many areas where transmission owners already have agreed to turn over control of their systems to regional transmission organizations (RTOs) or independent system operators (ISOs). If Congress seeks to encourage national adoption of the system proposed by FERC, statutory ROE incentives may only impede that result. States that have not approved divestiture of transmission facilities owned by state-regulated utilities may be more reluctant to do so if automatic cost increases are the result, without any clear, offsetting benefits.

The draft bill also lacks clarity on this point because the section on rate incentives concludes with a provision that all rates still must be just and reasonable. Under existing law, the FERC has ample flexibility to set appropriate, just and reasonable transmission rates without additional "incentives" prescribed by statute.

TRANSMISSION COST ALLOCATION

Section 219 of the draft contains detailed provisions for the pricing of transmission facilities not required for reliability purposes. Legislation prescribing a particular cost allocation formula is unnecessary. FERC possesses sufficient flexibility within its jurisdiction to fix just and reasonable rates for interstate transmission.

PUHCA REPEAL

Subtitle F of the draft bill would repeal the Public Utility Holding Company Act (PUHCA). PUHCA is a statutory bulwark against reassembly of vast utility holding company empires. NASUCA has adopted the following resolution on this subject:

> "in considering action affecting regulation or the structure of the electric industry, including PUHCA repeal or reform, Congress should require federal regulatory agencies to: 1) prevent abusive or preferential affiliate transactions, 2) continue oversight and protection over corporate and market structure to prevent abuses to consumers and competition, 3) disallow costs which are not pru-

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[2] *Proposed Pricing Policy for Efficient Operation and Expansion of the Transmission Grid,* FERC Docket No. PL03-1-000.

> dent and reasonable from wholesale rates, 4) exercise sufficient regulatory authority to prevent ratepayers from bearing any risk of utility diversification and to prohibit cross-subsidies between regulated and nonregulated subsidiaries..." NASUCA Resolution 1996-04, *Urging the Congress and Federal Agencies to Address Market Power as a Component of Any Federal Restructuring Action.*

The bill does not satisfy NASUCA's criteria because it would eliminate current PUHCA ownership restrictions on foreign ownership and non geographically contiguous utilities, would limit state and federal regulatory agency access to books and records of the holding company to the costs of regulated entities, would require a showing of necessity for regulators to examine holding company books, and could make much information regarding holding company affiliate transactions, obtained in regulatory proceedings, confidential. The proposed requirement for state commission findings of necessity before holding company affiliate data is made available could delay, if not bar altogether, timely rate case discovery of utility records normally available to state consumer advocates in rate proceedings without prior litigation and without state commission "findings" that the records are necessary or related to costs. The Enron debacle illustrates the recurring tendency of holding companies in financial trouble to look to regulated affiliates as a source of credit, cash, or other resources, all at the expense of captive utility consumers. PUHCA remains an essential consumer protection which should be vigilantly enforced, not repealed.

FERC MERGER REVIEW AUTHORITY

Some parties have urged repeal of FPA Section 203, which provides for FERC review of electric utility mergers. The draft in Section 1291 commendably retains FERC powers to review mergers continues such authority but alters the standard for review and allows for fast-tracking of FERC review and approval. There is a growing understanding that the nature of electricity and evolving electricity markets may permit the subtle exercise of market power, even without overt collusion, by entities having market shares typically allowed in other industries by the Department of Justice and the FTC. Many of the benefits projected by the FERC in its efforts, at significant expense, to create broader geographic markets for electricity rest upon the assumption that market power or flaws in existing markets will be mitigated if buyers can find more sellers in expanded regional trading areas. If, however, utility industry mergers and consolidation are allowed to occur simultaneously even as costly transmission expansions are undertaken to facilitate larger geographic marketing areas, the mergers could result in a shrinkage of the number of sellers, and a corresponding re-concentration or reappearance of market power. FERC should have authority to scrutinize and reject proposed electric industry mergers under evolving standards for measuring market power in electricity markets.

MARKET TRANSPARENCY, CONTRACT SANCTITY, ANTI-MANIPULATION, ENFORCEMENT

NASUCA is concerned that electricity rates at the wholesale level may at times be vulnerable to the exercise of market power, without effective remedies for consumers. There is a widespread concern that the FERC may lack certain powers needed to broaden its activities from that of a rate regulator to that of a market regulator, capable of supervising markets effectively and able to effectuate full remedies for consumers injured by the exercise of market power or unreasonable market rates.[3] In 2002, NASUCA adopted a detailed resolution supporting effective monitoring of such markets where they have been approved by the FERC.[4]

The "market transparency" provisions in Section 1281 of the draft actually authorize FERC to grant "exemptions" from existing transparency and sunshine principles long embodied in Section 205 of the FPA regarding public rate filing, notice of rate changes, and public inspection of all rate schedules.

The draft would authorize the FERC to implement an electronic rate filing system in which all rates would be publicly accessible via electronic means. There is no impediment under existing law, however, that prevents FERC from requiring utilities publicly to file their rates electronically; indeed, many utility filings are now made electronically.

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[3] A GAO report questions whether the FERC's capabilities and enforcement powers, originally designed for the traditional rate setting paradigm, are sufficient tools for an effective market overseer. *Energy Markets: Concerted Actions Needed by FERC to Confront Challenges That Impede Effective Oversight*, GAO-02-656, Table 4, 69 (June, 2002).

[4] NASUCA Resolution, *Promoting Market Monitoring Functions Within Regional Transmission Organizations (RTOs) Whenever Such Regional Entities Are Created*, June 2002, available at www.nasuca.org.

Section 1251 of the draft also includes provisions to outlaw the specific abuse of "round-trip" tra[illegible] but they are not comprehensive enough to reach new or more novel market m[illegible]ulation strategies that may not be expressly covered in the statute. For example, the bar of "round-trip" trading seems to apply only to bilateral strategies, and might not cover more complex trading gambits to manipulate rates. The refund remedy would allow refunds when commission rules are violated, but only with regard for short term sales.

CONSUMER PROTECTIONS

NASUCA does not view customer protections as a separate item within the overall statutory framework for federal oversight of the electricity industry. Rather, the fundamental purpose of the entire Federal Power Act of 1935 is to protect customers and to assure reasonableness in the provision of a service essential to life in modern society.[5] Accordingly, any effort to amend the FPA must address whether the proposed modifications assure real benefit to consumers, or at least maintain and not jeopardize the existing level of customer protection. From this broad perspective, the pending legislative proposals do not, in NASUCA's view, increase overall customer protection, and some measures may erode existing protections.

Some of the specific consumer remedies really add nothing to existing state measures. For example, states that allow retail utility competition quickly and effectively addressed the "slamming" issue—the unauthorized switching of providers. Accordingly, there is no need for federal legislation in this area of traditional state jurisdiction, especially when many states have not adopted retail energy competition models.

NET METERING, "SMART METERING" AND REAL-TIME PRICING

Federal measures to require or encourage states to address net metering, "Smart Metering" and real time pricing, such as contained in Section 1251 and 12[illegible] of the draft bill, are unnecessary. NASUCA is not opposed to net metering or to voluntary real-time pricing options. At the retail level, traditionally not an area of federal concern, states are experimenting with a variety of net metering, "smart metering" and time of use pricing methodologies for retail rates. NASUCA adopted a resolution in 2001 favoring retail rate methodologies that promote price stability and [illegible] ability of the "default" service rates for residential customers, urging each jurisdiction which introduces competitive markets for the provision of elements of [illegible] service to design default service rates so that:

> The Default Service Provider is equipped and able to ensure that [illegible] terms and conditions, reliability and quality of customer service [illegible] customer are no worse with such service than they would be with [illegible] utility service;
>
> The rates charged by such Default Service Provider are stable and [illegible] over the long term and that the rates or formulas to determine [illegible] approved only after appropriate notice to the public, [illegible] administrative review;
>
> The Default Service Provider shall not simply pass through [illegible] market rates for the energy or gas commodity portion of [illegible] shall be required to take prudent measures to provide [illegible] sure long term rate stability, through various means [illegible] to competitive bid, bilateral contract, or provider [illegible] plies . . .[6]

Accordingly, NASUCA is opposed to federal mandates [illegible] tricity for residential consumers, and opposes the [illegible] real-time price determinants into retail rates in states that [illegible] for generation.

RELIABILITY PROVISIONS SHOULD [illegible]

At the present time, reliability standards for [illegible] ation of generating plants and transmission lines, [illegible] tion, the North American Electric Reliability C[illegible] the cooperative and voluntary underpinnings of [illegible] ening in a competitive environment where [illegible] flowing are distributed among a larger number of grid participants, NASUCA adopted the following resolution in 1998:

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[5] "The Federal Power Act's primary purpose [is] [illegible] Dist. No. 1 v. FERC, 774 F.2d 490, 493 (D.C. Cir. [illegible]

[6] NASUCA Resolution 02-02, *Urging Jurisdictions [illegible] Electricity or Natural Gas Service to Assure the [illegible] Customers from a* [illegible] *vice Provider at Just and* [illegible]

> WHEREAS, the reliability of the Nation's electric system is of paramount importance to the consumers represented by the members of the National Association of State Utility Consumer Advocates (NASUCA);
>
> WHEREAS, the reliability of the Nation's electric system must not be allowed to be compromised by the current restructuring of the electric industry;
>
> ****NASUCA supports efforts to develop a national reliability organization that will continue the vital functions now performed by NERC, and will do so in a manner that is competitively neutral and recognizes the paramount concerns of consumers in a reliable electric system;
>
> ****NASUCA supports efforts to establish an independent Board of Directors that will govern NERC (or any successor national organization) in a competitively neutral manner that will benefit all consumers and that will not be dominated or controlled by any particular industry participant or segment;
>
> ****NASUCA supports federal legislation that would clarify FERC authority to review the reliability requirements imposed by NERC (or any successor national organization) and to ensure that such requirements are adopted and implemented in a manner that benefits all consumers*****

NASUCA Resolution 1998-07,

Urging the Establishment of an Independent Board to Govern Electric Reliability Matters and the Enactment of Federal Legislation to Ensure FERC Jurisdiction Over the Actions of Such a Board in the Future. With each iteration of comprehensive energy bills in recent years, NASUCA has supported reliability legislation. In addition, NASUCA has often urged, along with others, passage of standalone reliability legislation.

Since NASUCA's last testimony on this subject in March 2003, the widespread blackout of August 2003 underscored the importance of enacting measures to establish firm grid reliability standards and their enforcement. The very first recommendation of the final report of the U.S.-Canada Power System Outage Task Force issued in April 2004 is to "Make reliability standards mandatory and enforceable, with penalties for noncompliance."[7] The international Task Force also called for an independent study of the relationships among industry restructuring, competition, and reliability.[8] Such concerns over the impact of restructuring on reliability—signaled by NASUCA in its 1998 Resolution—are now heightened by recent evidence in a FERC proceeding that a utility power plant was deliberately shut down during the California market crisis with the apparent intent to create scarcity and drive prices up during a period when blackouts were imminent:

> "In one transcript released Thursday, an Enron trader identified only as Bill called it "a good plan" to shut down a small Las Vegas power plant on Jan. 17, 2001, under the guise of "checkin' a switch on the steam turbine." Enron employees also suggested that their plans to exploit Western energy markets predated the meltdown of 2000 and 2001, which brought record electricity prices and emergency blackouts."

Tapes Reveal Enron's Power Plant Rigging—Transcripts Detail How Electricity Traders Conspired to Shut down Smooth-running Generating Facilities During the Energy Crisis, L.A. Times, Feb. 4, 2004.

In the absence of legislation, FERC within the past year issued a Policy Statement which defines compliance with NERC standards to be "Good Utility Practice" and this has been engrafted into utility tariffs. *Policy Statement on Matters Related to Bulk Power System Reliability,* FERC Dkt. No. PL 04-5 (April 19, 2004). As a result, a utility that fails to follow NERC reliability standards, for example, following instructions from grid operators, will be deemed by FERC to be violating "Good Utility Practice" and thus violating provisions of its own tariffs. It is not clear, however, that this commendable step will be sufficient. Indeed, it is significant that FERC also seeks legislative enactment of standards with enforcement provisions, notwithstanding its efforts and actions after the blackout to clarify NERC standards and to engraft compliance with them into utility tariffs.

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[7] *Final Report on the August 14, 2003 Blackout in the United States and Canada, Causes and Recommendations,* U.S.-Canada Power System Outage Task Force (April, 2004) at 140. "The U.S. Congress should enact reliability legislation no less stringent than the provisions now included in the pending comprehensive energy bills, H.R. 6 and S. 2095." *Id.*

[8] "DOE and Natural Resources Canada should commission an independent study of the relationships among industry restructuring, competition in power markets, and grid reliability, and how those relationships should be managed to best serve the public interest." *Final Report on the August 14, 2003 Blackout in the United States and Canada, Causes and Recommendations,* U.S.-Canada Power System Outage Task Force (April 2004) at 148.

In sum, there is general agreement among many parties with diverse interests that enactment of the reliability provisions is desirable. If it appears that enactment of an omnibus energy bill is unlikely, NASUCA urges that the reliability provisions be adopted as a stand alone measure.

CONCLUSION

The primary purpose of the Federal Power Act is the protection of consumers, and so proposals to change it should be measured by whether they add meaningful protections or whether they erode the existing statutory bond with consumers that all rates demanded and charged will be just and reasonable. The reliability measures have merit and should be enacted. Taken as a whole, however, the remainder of the draft bill does not assure demonstrable benefits or meaningful added protection that would make its enactment into law a value proposition for consumers.

The bill may increase consumer rates unnecessarily by prescribing rate increases for electricity transmission lines and facilities beyond a level that is just and reasonable. FERC already possesses sufficient flexibility to set rates for transmission and to determine how rate burdens will be allocated. The bill alludes to deregulated market-based rates and private market rate setting mechanisms, as substitutes for the existing bond of the FPA that no rate will be charged that is not subject to FERC review for reasonableness before it is charged. Yet the bill does not establish any criteria for FERC to follow when granting or denying market-based rates, it does not grant FERC or any other body sufficient market oversight powers, and it does not provide full remedies to consumers when there is market abuse or rate manipulation. In light of recent instances of energy market manipulation, holding company abuses, FERC's inability to provide timely and complete consumer refunds and remedies when the market rates it has allowed are unreasonable, and the possibility of further industry consolidation, it is clear that consumers need greater, not less, statutory protection from the exercise of utility market power. For these reasons, NASUCA concludes that other than the reliability provisions, the proposals to modify the Electricity title of the FPA now under consideration are not in the interests of utility consumers.

I want to thank Chairman Hall and the committee again for permitting me to share NASUCA's views on these important issues. I would be pleased to address any questions you may have at this time.

Mr. HALL. Thank you, Mr. Norlander. The Chair now recognizes the Director of Global Warming and Energy Programs for the Sierra Club, formerly with the consulting firm of Bob Lawrence and Associates, Policy Director for the Alliance to Save Energy. I recognize you, Mr. Hamilton, for 5 minutes.

STATEMENT OF DAVID HAMILTON

Mr. HAMILTON. Thank you very much, Mr. Chairman, and thank you for having the Sierra Club to come and give our view on the bill. I wish I was going to give a more upbeat and sanguine assessment of it. And I also appreciate the committee's encouragement for us to give a very broad comment on the bill, as opposed to staying within the motor-fuels rubric.

The Sierra Club believes that the U.S. can have an energy policy that provides the energy that we need to grow economically and fulfill our needs, that creates job, that controls energy costs for consumers, and that respects and preserves the environment. Unfortunately, H.R. 6 does not provide the policy that we need to get there, partly because of the way it was constructed and its evolution out of the National Energy Policy Development Group headed by the Vice President.

H.R. 6, we believe, is weighted far too heavily toward an answer to every energy problem that is more "supply solves the problem," and we believe that that ignores and neglects several of our key energy problems that we have yet to really make progress on, and those include oil dependency. The Energy Information Administration has looked at H.R. 6 and said this is not materially going to change price and supply. Okay. That is clearly one of our largest energy problems.

H.R. 6 does not address global warming, and I think it is worth noting that today, in other areas of the world, the Kyoto protocol goes into effect, where other nations are rolling up their sleeves to acknowledge and figure out how they are going to address carbon emissions and the problem of global warming. Then 2004 saw an immense amount of research come out detailing what is happening from the global warming, and though the Sierra Club, as well as many of you, may have problems with the Kyoto treaty, the complete disengagement of the U.S. from international discussion on it is, we believe, a disgrace.

Third, H.R. 6 will not protect consumers in the long run from price and supply swings, partly because we have such small oil reserves, related to our oil consumption. Increasing supply cannot fundamentally do the job of securing consumers.

Fourth, H.R. 6 causes other environmental damage by drilling in environmentally sensitive areas. And Mr. Chairman, I was excited to see on my e-mail this morning that drilling in the Arctic National Wildlife Refuge is planning to have been taken out of the energy bill. I would be even more excited to see it not offered as a stand-alone bill, but don't expect that.

Mr. HALL. Don't get your hopes up.

Mr. HAMILTON. No, no danger.

And the fifth thing that H.R. 6 exacerbates, rather than solves, is the fact that energy prices in this country are hugely distorted by a system of subsidies, by the fact that things like environmental costs, like global warming, are not included in energy prices, vastly distort the relative values of energy supply options. And until we go back and take another look at what tax breaks, what subsidies, what externalities really cost the American public, whether it is rising childhood asthma rates, whether it is lower tree growth in the Northeast because of acid rain, until we start including those kind of costs in our energy prices, we will always have a distorted market.

Finally, we believe that there are 3 things that we should pursue much more heavily in an energy policy and a bipartisan strategy, we hope, can go a long way toward accomplishing this. We were very pleased to see that the National Commission on Energy Policy advocated the increase of auto-fuel efficiency standards to reduce our dependence on oil and to increase our national security. It will vastly reduce carbon emission; it will address global warming.

Second, Mr. Chairman, I was very happy to see that you have see that you have become a vice-chair of the Alliance to Save Energy, where I worked for about 8½ years. We need to be much more aggressive about the energy efficiency programs that we take on, and I was very happy to hear Mr. Downes talking about the gas industry's interest in that. And you know, I talk about 3 studies in my testimony that I won't go into details of, but we can save money, create jobs, reduce emissions all in the same vote, by treating energy efficiency as an energy source in the same way if you pulled it out of the ground and burned it. And I think that we find, when we consider all of those costs, the environmental costs, that it is one our most economical, if not our most economical, energy source.

Finally, the Senate has sent over, twice, a renewable energy portfolio standard that would give a boost to our renewable energy industries in the same way the U.S. Congress gave a boost to the nuclear industry in the late 1950's. We urge you to accept that at this time, when and if it comes over. You know, again, renewables are undervalued because of externalities and because of the vastly greater subsidies for conventional industries substantially distort the price.

So we urge that you would accept the renewable portfolio standard. Again, Mr. Chairman, thank you very much for allowing me to come testify.

[The prepared statement of David Hamilton follows:]

PREPARED STATEMENT OF DAVID HAMILTON, DIRECTOR, GLOBAL WARMING AND ENERGY PROGRAMS, SIERRA CLUB

Thank you, Mr. Chairman, for inviting the Sierra Club to testify on national energy legislation. My name is David Hamilton, and I am the Director of Global Warming and Energy Programs at the Sierra Club. The Sierra Club is a non-profit, non-partisan organization with about 750,000 members and chapters in 50 states and Puerto Rico.

INTRODUCTION

I am here today to comment on behalf of the Sierra Club on the upcoming Committee energy bill. I am very hesitant to address a bill I have not yet seen. But at the instruction of Committee staff, I am treating the Energy Policy Act OF 2005 as if it will have identical provisions to the H.R. 6 Conference Report from the 108th Congress.

Though I am testifying today on the Oil, Natural Gas, and Motor Fuels panel, we appreciate the Committee's open invitation to make a broader comment on the bill. In as much as the Chairman and the Committee have chosen to make H.R. 6 and its successor a package rather than considering various provisions separately, it behooves us to look at the bill as a whole as the Congress again begins the process of considering the appropriate answers for our national energy problems.

Mr. Chairman, the Sierra Club believes that our nation can have an energy policy that provides the needed resources for economic development, creates jobs for American workers, reduces energy costs and makes them more predictable for consumers, and respects and preserves our environment. We believe that, while such a policy requires that Americans be better educated about their energy choices, our nation brims with the ingenuity, creativity and drive required to solve our energy problems in a way that is, to use an overused word, sustainable. That means that we can prosper today while leaving our children and grandchildren equivalent assets and quality of life that they might prosper themselves in their maturity.

The Sierra Club believes that H.R. 6 did not provide the kind of energy policy I just described. We strongly opposed H.R. 6 and it is likely we will strongly oppose the Energy Policy Act of 2005. We believe that the bill fails to measure up to an energy policy worthy of the nation in myriad ways. To say that it subverts existing environmental protections is to grossly understate the case. It leaves consumers with less protection from violent swings and steady upward pressure on energy prices. H.R. 6 gives vast subsidies to fully established industries and purports to support new, cleaner energy industries with one hand while it undercuts them with the other.

IT WON'T SOLVE THE PROBLEM—

But perhaps the greatest flaw of H.R. 6 is that it doesn't even address, much less solve many of our most thorny and pressing energy problems. The flaws in this energy bill can be traced to its origins and evolution from the 2001 report of the National Energy Policy Development Group, administered by the Vice President. Our issues with the secretive process of the Cheney Energy Task Force are on record with the Supreme Court and in the media. Our criticism of its results, however, stem from the assumption that a single-minded focus on increasing conventional energy supply is capable of solving the energy-related problems faced by our nation.

As reflected by the Task Force report, that panel responded to natural gas and gasoline price hikes of 2001, and operated from the conclusion that we don't have enough energy and that our problems could largely be solved by simply augmenting our supplies of coal, oil, natural gas, and nuclear electricity. They looked at our existing energy sectors and asked what can we do for the coal industry to make more coal-fired electricity. It asked what we can do for oil and natural gas to get more energy. How do we get nuclear power going again?

The fundamental flaw of this approach is that both the NEPDG and H.R. 6 fail to address critical problems inherent in our energy system. Ironically, they are many of the same problems that motivate voters to create the political momentum to pass a bill, such as high gasoline prices. These problems will not be solved simply by an increase in energy supply.

The Sierra Club believes that our most pressing energy problems are:

1.) Our Dangerous Dependence on Petroleum—H.R. 6 fails to protect American families from steadily increasing upward pressure on crude oil and gasoline prices. We continue to be reliant on politically unstable regions for the underpinning of our transportation system, and, by the judgment of the Energy Information Administration (EIA), H.R. 6 will not fundamentally affect the price and supply of oil. This remains true despite the scores of times that high gasoline prices have been used as a reason we need to pass this bill. It remains true despite the blitzkrieg of drilling for oil and gas that the bill unleashes on the wild areas of the United States. We use 25 percent of the world's oil supply and hold less than 3 percent of the world's reserves. We can open every square foot of our nation to fossil fuel exploration, and it will not begin to solve our problem.

Our oil dependence saps our resources as prices rise, skimming the cream off of our economy and causing unpredictable cost swings for consumers. Crude oil prices have risen from the mid $20s per barrel to the mid $40s since 2000. Our failure to address our dependence on oil has cost literally trillions of dollars, according to Oak Ridge National Laboratory. Again, H.R. does nothing to materially solve the problem.

Perhaps more importantly, H.R. 6 fails to protect American soldiers from the need to secure adequate future oil supplies. Without steps to actually save oil and stem the rising percentage of oil supply that is imported, the only alternative is to follow the NEPDG report's strategy of cajoling and using diplomatic leverage in oil-producing regions around the world and somehow motivate a near doubling of oil production over the next two decades. If that doesn't work, Mr. Chairman, what is our option?

In our view, Mr. Chairman, solving our oil dependence problem is a matter of life and death. But this bill does not do it.

2.) Global Warming—It should not escape our notice, Mr. Chairman, that the Kyoto Protocol goes into effect today. The willful refusal of the United States to respond to the accumulated scientific evidence of global warming when we are responsible for far and away the greatest share of greenhouse gas emissions of any nation in the world constitutes an ongoing and growing national disgrace.

Last year's multi-nation study of the effects of warming on the Arctic region shows that the environmental effects of global warming are advancing more quickly than scientists previously believed. There has been widespread melting of glaciers and sea ice as well as significant shortening of the snow season that carries dire implications for local populations and wildlife species. 2004 research on ocean chemistry revealed much about carbon absorption in our oceans and points up the vulnerability of their chemical and acidic balance. The geographic ranges of many plant and animal species are changing. Several noted climate scientists are warning of a potential "tipping point" at which the effects of warming accelerate and perhaps result in dramatic and permanent changes in our natural systems.

It is with growing incredulity that the rest of the industrialized world views the effectiveness of energy industry disinformation campaigns with the American public. It is with growing distress that many Americans view the unresponsiveness of our political leaders to the significant and ominous results of the scientific inquiry thus far. Our lack of action to address global warming raises concern about the capacity of the U.S. Congress to respond to a genuine environmental emergency in the public interest.

Further, even measures in H.R. 6 described as the key to a "cleaner" future are expected to be ineffective. The incentives in the bill for "clean coal" technology—though the Sierra Club has significant concerns over whether coal can be truly clean—have been argued to be a hedge against global warming. But EIA estimates that between now and 2025, 77 gigawatts of new coal capacity will be built in the U.S. Their estimate is that only 7-8 gigawatts, or roughly 10 percent of that total will be advanced clean coal technology. The lion's share of the new coal capacity is expected to be dirty, pulverized coal that could cripple prospective efforts to curb domestic global warming emissions and eviscerate demand for cleaner alternatives.

There are currently 60 gigawatts of new coal capacity—or roughly 100 new plants—in the application pipeline across the country. Less than 10 percent of the new proposed capacity is IGCC, or another form of gasification. There is currently little attention being paid to the fact that possibly irrevocable national global warming policy is being made in hundreds of individual decisions around the country. These decisions by state agencies, public utility commissions, and the courts may well determine our ability to do anything about global warming in the future. They will certainly affect future demand for cleaner alternatives such as renewable energy and energy efficiency. As far as I know, no Committee in Congress or agency of the federal government has officially regarded this development as a matter of concern. We urge the Committee to address the implications of this new "coal rush" as soon as possible.

3.) Fluctuating and Increasing Energy Prices—American energy consumers remain at the mercy of not only periodic violent swings in consumer energy prices, but a steady upward pressure on oil and natural gas prices that has proven financially difficult, if not devastating for many American families. The remedies for our energy woes prescribed by H.R. 6 assume that solving the problems of the energy industries will solve problems for consumers.

In fact, energy efficiency and demand reduction programs for oil, natural gas, and electricity have proven extremely fruitful solutions for price stability by reducing the likelihood of price spikes, and fostering broad-based economic returns and development. Unfortunately, demand reduction and efficiency programs received wholly insufficient attention in H.R. 6.

4.) Other Critical Environmental Damage—Beyond global warming, H.R. 6 fails to assign environmental quality the value it deserves in our society. There is a long list of environmental harms in this bill. Provisions will likely result in increased mercury contamination of waterways, the opening of some of our most environmentally sensitive and valuable lands to oil and gas drilling, increases in childhood asthma, water pollution, and wholesale landscape destruction caused by mountaintop removal and other forms of coal mining. The strategy behind H.R. 6 simply fails to solve our energy problems in a way that attempts to minimize environmental damage.

We expect that when combined with provisions from the Resources Committee, the bill will again include the opening of the Arctic National Wildlife Refuge to oil and gas production. This is another example of how a myopic strategy of "more energy" fails to take into account the value of pristine wilderness or calculate the benefits to Americans of wild areas that will remain protected. Opening the Arctic Refuge to drill for oil that will supply us for only a few months—that won't begin to flow until 10 years after approval—will neither solve our oil dependence problems nor even noticeably delay them. We need better solutions that structurally change the equation.

5.) Distorted Energy Values—It is the year 2005, and we still fail to incorporate the societal costs of our energy system into the wholesale and retail prices of energy end products. We willfully ignore the costs of energy use to public health, the environment, diplomatic and military defense of our oil and gas supplies, and a system of accumulated subsidies that serves the haves at the expense of the have-nots and, while it continues to supply energy to American families, it does so on highly unfavorable terms.

The Sierra Club urges the Congress to take a very close look at the complex web of U.S. energy subsidies with the intention of revealing the true relative costs of energy sources. The idea that U.S. energy consumers are somehow protected from extra energy costs by federal subsidies only obscures the true market value of energy. The distortion in true economic value that results from this system penalizes Americans and makes the job of choosing the most beneficial energy investments even more difficult.

Though the federal government has agreed to take control of utilities' nuclear waste, taxpayers will still be paying the cost of its maintenance for 150,000 years, as well as the industry's liability insurance through the Price-Anderson Act. The cost of the Iraq war should be added to our price at the gas pump in order that we understand the relatively low cost of fuel efficiency. The public pays the health costs of high mercury concentrations in fish, exploding rates of childhood asthma, and depleted crop and lumber yields from acid rain—all ancillary costs of our energy use. That is not to mention the existing labyrinth of tax breaks for the oil, coal, gas, and nuclear industries.

Even the relatively small subsidies for energy efficiency and renewable energy should be put on the table, as we believe a transparent and equitable system—the theoretical "level playing field"—will result in a much bigger gain than loss for cleaner energy sources and a better system for the nation. A party that champions the free market should relish the opportunity to clear the air in this fashion.

BROADEN THE CRITERIA

H.R. 6 might have better addressed our range of energy problems if some additional criteria had been set to evaluate potential energy policies beyond more-energy-is-better. An energy policy based on industry wish-lists is good for energy companies, but we need an energy policy that is good for Americans—not just for the next quarter or next year, but through the lives of our children and grandchildren. If many of the criteria below were used to evaluate provisions considered for H.R. 6, I believe we would have ended up with an energy bill that looks largely different. We recommend the following criteria:

- Prioritize policies that *actually reduce* price and supply volatility above and beyond simply providing marginal increases in output;
- Favor policies that reduce future greenhouse gas emissions, criteria air pollution, or water pollution and their inevitable future costs;
- Seek measures that maximize the overall benefit to the taxpayer and American families, factoring in environmental externalities and equalizing for the level of public subsidy currently provided for that industry;
- Favor strategies that will create broad-based economic development and job creation rather than profit for narrow existing industries;
- Energy policies should enhance genuine free market competition within an industry and prevent concentrations of market power that can potentially harm American families and create the atmosphere of abuse that led to the Enron scandal and its self-dealing and price fixing;
- Set a very high bar for requests by industries to eliminate environmental measures as regulatory barriers to increased production, requiring that there be significant evidence that the environmental regulation has actually depressed production—not just increased costs or proved a nuisance to producers—and require evidence that the benefit would significantly outstrip the existing benefit to public health and the environment of the regulation;
- Consider the conveyance of drilling rights on environmentally sensitive and protected lands something that should occur as a lat resort—after cheaper, cleaner options like energy efficiency are fully exploited.

We hold that had a least-cost priority structure for energy policy options been used to build our energy policy—H.R. 6 would have been much more focused on demand reduction strategies and fostering renewable energy than it is now. By participating in a process that sought to fill industry wish-lists, and then allowed those measures with the most political muscle behind them to survive, Congress has done the nation a disservice and put its future economic, environmental, and military security at the mercy of highly volatile markets without solving the problems inherent in our reliance on those markets.

One of the many benefits of energy efficiency programs is the level to which they insure energy markets against price and supply shocks—or even rescue them as in the case of the California electricity crisis of 2001. Failure to even attempt the most rudimentary assistance to states or incentives for creating and sustaining strong energy efficiency programs is a glaring indicator that the power of these options is either being misunderstood or ignored by the U.S. Congress.

WHAT H.R. 6 IS MISSING

We believe that H.R. 6 vastly under-utilizes both energy efficiency and renewable energy options. Due to the skewed costs of energy caused by the tangled web of subsidies and the omission of many environmental costs from the end-use price of energy, both energy efficiency and renewable energy are economically under-valued. Further, political opposition by affected industries have forced some energy efficiency measures—such as an increase in fuel economy standards—completely off the table.

DRILL IN DETROIT: WE MUST INCREASE THE FUEL ECONOMY OF OUR VEHICLES

Mr. Chairman, there is no way that we can drill our way out of the economic, environmental, and political difficulty caused by our dependence on oil supplies and the inevitable rise of our level of imports past 60 percent. U.S. domestic oil production has fallen steadily since 1970 and will continue to fall inexorably over time whether we drill in the Arctic, on the Rocky Mountain Front, or under this building.

Our greatest, most available untapped domestic source of oil is that which we waste by failing to adopt existing energy saving-technologies in our light duty vehicles. We have the technology to significantly improve fuel economy and reduce pressure on international oil prices by cutting domestic oil demand. Over the past 20 years, advanced transmissions, ignitions, lightweight (but strong) materials, hybrid electric drive trains, and other technologies have shown that significantly improving fuel economy is no longer a technological obstacle. It's the political obstacle that remains, Mr. Chairman.

If all of the vehicles in the U.S. averaged 40 miles per gallon (mpg) we would save over 3 million barrels of oil each day, more than the United States currently imports from the Persian Gulf and could ever extract from the Arctic National Wildlife Refuge, combined. Getting 40 mpg would cut global warming pollution by 600 million tons a year and save consumers more than $45 billion each year at the gas pump.

Mr. Chairman, new research shows that advanced technologies and engineering strategies largely put to rest the claim that increasing fuel economy necessarily decreases auto safety. Auto safety is a question of the specific engineering of vehicles, not a simple inverse relationship between size and weight. In fact, recent research by Dr. David Greene at Oak Ridge National Laboratory shows that much of the safety data that had been used to fight increases in fuel economy has been misinterpreted and misused over the years. While we must continue to make our vehicles safer for our families, we can make strides toward more fuel efficiency at the same time.

Further, while they might disagree, we believe that the adoption of new technology is critical to providing consumers what they want and maintaining the competitiveness of the domestic auto industry. In an echo of the 1970s, resistance by domestic manufacturers to incorporating hybrid electric drive technology in vehicles has allowed Honda and Toyota to jump way ahead in the marketing of hybrid vehicles. Thus far, hybrids have proven very popular and many models have waiting lists of many months. The addition of the Ford Escape hybrid SUV last summer was a positive development, and the strong demand has encouraged them to increase their production for 2005.

By failing to get serious about reducing demand for oil in our transportation system, we set up a situation where our only alternative is to diplomatically or—if necessary—militarily secure oil supplies from other nations, opening worldwide supply lines to attack or disruption by terrorists. Mr. Chairman, without an aggressive program to reduce demand and insulate our economy from price and supply shocks, we may doom ourselves to fight one oil war after another after another in order to allow our citizens to maintain their lifestyle. Mr. Chairman, that is not a situation I want for my children, and one that I believe is not necessary if we pursue cost-effective options available to us.

ENERGY EFFICIENCY: A POWERFUL ECONOMIC DEVELOPMENT TOOL

Mr. Chairman, I was pleased to see recently that you have joined the leadership of the Alliance to Save Energy as a vice-chair. Before joining the Sierra Club, I was policy director of the Alliance for eight and a half years. Your contribution to that fine organization displays your understanding and appreciation for the broad-based economic power of using energy more efficiently.

Too often, Mr. Chairman, people view energy efficiency as doing little things to save a nickel here and dime there. But as you understand through your work with the Alliance, energy efficiency is a potent, powerful tool for economic development and environmental protection that showers benefits across economic sectors, creates jobs for American workers, makes us more competitive internationally, and offers solutions to many of the problems of our energy system discussed previously.

In addition, too many people consider demand and supply side options as wholly different things. As you know, and the Alliance to Save Energy trumpets every day, energy efficiency programs extend and increase energy supply just as surely as if we pumped it out of the ground or mined it. In fact, it can increase energy supply more cheaply than building new power plants or sinking new oil and gas wells.

Unfortunately, H.R 6 fails to exploit energy efficiency to a meaningful degree. There are useful provisions, such as the addition of a variety of products for which the Department of Energy must set energy standards and roughly $3 billion over 5 years for highly efficient products and practices. Overall, however, Mr. Chairman, the bill fails to pursue energy efficiency commensurate with other energy sources or do more than scratch the surface of the potential benefits available from using energy more efficiently.

The American Council for An Energy Efficient Economy estimates that the energy efficiency provisions in H.R. 6 would improve our nation's overall efficiency level by a mere 1.5 percent over an 18 year period. By contrast, aggressive energy efficiency efforts in states like Vermont and California are currently achieving electric efficiency gains of greater than 1 percent *per year*.

In his testimony before your Committee last week, ACEEE Executive Director Steven Nadel described their research on the potential effect of aggressive energy efficiency programs on natural gas prices. ACEEE concluded that achieving a savings target of 4 percent per year can result in a 25 percent reduction in natural gas prices and a national economic savings of $100 billion by 2010. No proposed means of simply increasing gas supply has the potential to provide the same level of benefits to American families and the environment.

In October, 2004, Mr. Chairman, the research organization Redefining Progress released a study that detailed the potential economic results of a suite of energy efficiency and renewable energy programs. The results of the Redefining Progress report showed that making the kind of investments in energy efficiency and renewable energy that are available to us now would result in the creation of 1.4 million new jobs over and above the business as usual case by 2025. In addition American families would achieve an average household savings on energy costs of $1,275 per year while the nation would benefit from reduced foreign oil dependence and significantly lower greenhouse gas emissions. Mr. Chairman, with potential results for American families like these on the table, strong clean energy policies should be a no-brainer for the nation.

There are a variety of options that have been proposed to better exploit potential energy efficiency resources in the electric sector. Those include an energy efficiency standard structured similarly to the one in Texas, or a public benefits fund that mirrors many of the most effective efficiency programs currently being carried out in a variety of other states. The Alliance to Save Energy estimates that a national public benefits fund would save 440 billion kWh per year, reduce peak electricity demand by 160,000 MW (the equivalent of 503 300MW power plants), save consumers a net $68 billion dollars, and prevent annual carbon dioxide emissions of 96 million metric tons by 2020.

We urge that the Committee incorporate such ambitious energy efficiency provisions in the Energy Policy Act of 2005. Such measures would begin to balance the bill's myriad benefits for energy industries with ones that benefit the American public.

RENEWABLE ENERGY: CLEAN POWER FOR THE FUTURE

Mr. Chairman, the Senate has twice sent a proposal for a renewable energy standard to the House, only to have it removed in a Conference Committee. We applaud the inclusion of the renewable energy production tax credit (PTC) in H.R. 6, which both extends the tax credit for the production of electricity by wind energy and broadens that credit to include additional renewable energy sources. If the nation is to take global warming seriously, however, we need to maximize the future share of our electricity that will come from clean renewable sources.

The Senate provision would require electricity companies to increase the share of renewable energy in the mix of their power sales to 10 percent by 2020. The enactment of this provision would increase renewable energy electricity production in the U.S. from about 18,000 megawatts in 2002 to approximately 80,000 megawatts in 2020. An analysis by the Union of Concerned Scientists (UCS) analysis found that the Senate-passed 10 percent renewable electricity standard, in combination with the expanded and extended PTC, would result in a $12.6 billion savings for consumers and taxpayers through 2020.

The Sierra Club strongly urges the incorporation of a renewable energy standard at least as strong as that passed twice by the Senate. The benefits of renewable energy will accrue to future generations as the low environmental and fuel cost of the power becomes more fairly valued. These young industries deserve at least the consideration given to nuclear energy by the federal government in the 1950s, when it passed measures to assist that industry.

ENVIRONMENTALLY HARMFUL PROVISIONS OF H.R. 6

Providing an in-depth analysis of the environmentally damaging provisions of H.R. 6 would have been such an extensive and discouraging task, that I appreciate the Committee's permission to a give a broader treatment of what we believe the energy bill should look like. We cannot turn away, however, from a set of provisions that constitute an aggressive attack on environmental protection in the U.S.

We urge that the Committee reconsider and remove the following provisions from the successor to H.R. 6. While we have no illusions that this will take place, this assault on the environment in the name of increased energy production should not go forward. Most of the following proposals do not serve the American public or solve our nation's major energy-related problems. The continued inclusion of the vast majority of these provisions will secure the continued opposition of the Sierra Club to House energy legislation.

Damaging Public Health

—Allows more smog pollution for longer than the current Clean Air Act
—Exempts all oil and gas construction activities from certain stormwater runoff provisions of the Clean Water Act
—Delays air pollution clean up in southwestern Michigan for two years.
—Dramatically increases air and global warming pollution with incentives for burning coal, oil and gas.
—Inhibits deployment of "clean coal" by disqualifying federally-funded clean coal projects as "best available control technologies" that must be adopted by other coal-powered industrial facilities.
—Threatens drinking water sources.
—Fails to ban MTBE
—Gives legal protection and exemption to owners of abandoned oil and gas wells.
—Encourages the mixture of hazardous wastes in concrete products as an alternative to safe disposal.
—Fails to include standards for providing clean, renewable energy sources.
—Allows electric utilities to enter into emission trading with mobile sources.
—Fails to do anything to address global warming.
—Provides millions in taxpayer funds to uranium companies for polluting mining practices that threaten drinking water aquifers.
—Sets dangerous precedent for arbitrarily reclassifying radioactive waste.

Attacking Public Lands and Resources

—Allows the Interior Secretary to designate utility and pipeline corridors across public lands without seeking public input.
—Opens the National Petroleum Reserve Alaska for oil and gas production.
—Allows the Secretary of Energy to permit electric power lines across federal public lands.
—Allows applicants for federal drilling permits to take up to two years to comply with application requirements
—Expedites the permitting and completion of energy projects on federal lands.
—Requires the U.S. Geological Survey to identify "restrictions and impediments" to the development of federal oil and gas deposits.
—Expedites the approval of energy projects in the Rocky Mountain region.
—Lifts the limitation on the amount of federal oil and gas acreage one entity can control, encouraging monopolization.
—Mandates the siting of a high voltage electricity transmission line through the Cleveland National Forest and other public lands.
—Encourages oil and gas development under Padre Island National Seashore.
—Waives existing National Environmental Policy Act (NEPA) environmental review and public participation process for all types of energy development projects on Indian lands.
—Grants the hydropower industry unprecedented rights to appeal environmental
—Authorizes $550 million for timber companies to log trees in our national forests
—Permits activation of an energy cable that is running the length of the Long Island Sound and that is in violation of both state and federal permits.

Attacking Coastal Areas

—Seeks to create unprecedented streamlined authority for the Department of Interior to permit new energy projects in the Outer Continental Shelf (OCS).
—Weakens states' ability to have a say in projects and federal activities that affect their coasts.
—Circumvents the environmental review process for construction of storage facilities and terminals for LNG on the OCS
—Creates incentives for expanded offshore oil and gas drilling.
—Promotes coastal drilling through revenue sharing
—Gives away taxpayer owned oil and gas to the petroleum industry in fragile Alaskan waters.
—Promotes the development of all Outer Continental Shelf lands through two ill-defined studies of energy resources within the OCS.

Hurting Consumers & Taxpayers

—Gives billions of dollars in tax breaks and subsidies to energy companies.

—Tax breaks are even provided for technologies that will increase pollution, including
- creating a program to assist and encourage companies to develop "ultra deepwater and unconventional" gas reserves.
- mandating royalty exemptions for offshore wells deeper than 400 meters;
- allows the Secretary of the Interior to reimburse oil and gas companies for environmental review of their projects;
- creating a new, first-ever $1.5 billion tax break for burning coal,

—Requires taxpayers to pay up to $2 billion to clean up leaking underground storage tanks.
—Provides $2 billion in "MTBE Conversion Assistance" for oil companies.
—Preempts state authority to site transmission lines, based on very vague criteria, for every state but Texas.
—Extends for 20 years the limits on liability for nuclear plant operators in case of a catastrophic accident.
—Repeals the PUHCA, the main law to protect consumers from market manipulation, fraud, and abuse in the electricity sector.
—Authorizes a $1.1 billion nuclear reactor in Idaho, with a potential exemption from Federal management rules.
—Leaves landowners, ranchers and others affected by oil and gas development powerless to protect their land and water from development activities.
—Waives existing law and mandates expeditious oil and gas leasing throughout the NPR-A, and allows for waivers of all royalties due the taxpayers as a result of leasing of these lands.
—Spends $3.7 billion for polluting coal-based technologies.
—Allows the Interior Department to reimburse the oil and gas industry from federal royalty revenues for the costs of environmental analyses.
—Reverses the Federal Power Act's consumer protection requirements by allowing parties to enter into contracts that can only be challenged by the Federal Regulatory Commission prospectively.
—Authorizes the Energy Department to provide open-ended U.S. loan guarantees for coal-to-synthetic-diesel fuel projects.
—Allows the Interior Department to compensate oil and gas companies 115 percent of the costs of cleaning up abandoned wells on public lands.
—Limits the Bureau of Land Management's ability to receive fair market value for utility corridors crossing public lands.
—Gives production tax credits to conventional nuclear reactor.
—Increases the burden of proof on the Commodity Futures Trading Commission in cases of investigations of market manipulation and/or reports to investors.

Undermining National Security

—Reverses a long-standing U.S. nuclear non-proliferation policy against reprocessing waste from commercial nuclear reactors
—Fails to reduce the nation's dependence on oil by improving the fuel economy of our cars, trucks and SUVs.
—Extends the Dual-Fueled Vehicles loophole that allows automakers to get CAFE credit for producing vehicles that can run on alternative fuels.
—Makes it more difficult to update fuel economy standards.
—Fails to develop and implement a plan to reduce oil consumption by at least one million barrels per day by 2013.
—Fails to ensure deployment of hydrogen fuel cell vehicles
—Reverses 10-year policy of restricting the export of bomb-grade uranium for the benefit of one company.
—Reclassifies undefined "residual" amounts of depleted uranium as "low-level" radioactive waste, thereby making it subject to far less secure handling and disposal protections.
—Strikes down requirements in current law for utilities to diversify and decentralize the electricity supply by renewable power.

Mr. HALL. Thank you very much, sir. The Chair now recognizes Donald Santa, Jr., a former member of the FERC, President of Interstate Natural Gas Association of America, served as Majority Counsel on the U.S. Senate Committee on Energy and National Resources. Glad to have you back before us, Mr. Santa. I recognize you for 5 minutes, sir.

STATEMENT OF DONALD F. SANTA, JR.

Mr. SANTA. Thank you Mr. Chairman, Chairman Barton, and members of the subcommittee for inviting INGA to testify at today's hearing. The interstate natural gas pipeline industry agrees with President Bush that 4 years of debate on energy legislation is long enough; and therefore, we applaud your efforts to move quickly this year on an energy bill.

If you remember only one thing about INGA's testimony, I ask you to remember the figure $200 billion. According to a study completed by the INGA foundation last year, $200 billion would be the estimated cost to American consumers between now and the year 2020 if needed, new natural gas infrastructure projects are delayed by 2 years. And that is the cost associated with delays and not product cancellations. Infrastructure, which includes pipelines, storage, and LNG import terminals, is a critical element in addressing the higher natural gas commodity prices we are experiencing today. During peak demand periods, a robust infrastructure can mitigate price volatility and help ensure that everyone who needs natural gas can get it at reasonable prices.

Until recently, the processes for approving and permitting new interstate natural gas pipelines worked well. Congress, in 1942, granted FERC's predecessor agency broad authority to approve and site these pipelines. The past several years, however, have seen growing conflicts between FERC, acting in its capacity to administer the Natural Gas Act, and other Federal and State agencies, acting pursuant to other Federal statutes. The 2 main examples are actions, or in some cases, inactions, taken pursuant to the Costal Zone Management Act and the Clean Water Act.

The committee's discussion draft addresses these issues in several ways. First, the draft requires that all administrative appeals of actions by other agencies, involving a FERC approved project, must use the record developed during FERC's comprehensive review under the National Environmental Policy Act. This is intended as a powerful incentive for other agencies to participate fully in the FERC NEPA process and do avoid duplicative expenditures of time and resources to compile individual records addressing the same issues.

INGA also strongly supports the provision in the draft to create an expedited appeal to the U.S. Court of Appeals for the D.C. Circuit when other agencies take actions inconsistent with or fail to act on permits required in connection with a FERC approved project. INGA believes that these provisions go a long way toward addressing the emerging conflicts in pipeline siting, and we appreciate their inclusion in the discussion draft.

We also wish to bring several other issues to the subcommittee's attention. For example, INGA supports a statutory clarification of FERC's lead agency status under NEPA. Let me be clear that we do not propose to effect substantively the authority conferred on Federal and State agencies by statues such as CZMA and the Clean Water Act. We do propose that FERC be tasked with coordinating all environmental reviews associated with interstate pipelines that are mandated under Federal law.

In addition, INGA believe that the same process for reviewing, approving, and siting interstate pipelines should also apply to onshore, liquefied natural gas terminals. These facilities are engaged in both foreign commerce, and in some cases, interstate commerce. Wherever they may be constructed, LNG facilities will have economic effects that span entire regions, if not the entire country. Again, we do not propose leaving State governments out of the permitting process. Just as with interstate pipelines, states already have significant, federally delegated powers that are relevant to permitting new LNG import terminals.

INGA also supports affirming in statue FERC's clear preemptive authority to cite such facilities, which in our view is wholly consistent with case law, interpreting Section 3 of the Natural Gas Act. Subject, of course, to the associated permitting authority that State and Federal agencies now exercise under Federal law and under State law where that does not conflict with Federal law. Mr. Chairman, INGA's more detailed legislative recommendations are part of our written comments, including a request that Congress provide a Federal forum for addressing State tax policies that discriminate by singling out interstate pipelines for higher taxes.

The main point that I want to leave you with today is the $200 billion figure that I referenced earlier. The status quo carries a cost to American consumers in our economy. That is why INGA wants to work with the Congress to enact statutory reforms to ensure that these forecasted higher costs do not become a reality. Thank you very much.

[The prepared statement of Donald F. Santa, Jr. follows:]

PREPARED STATEMENT OF DONALD F. SANTA, JR., PRESIDENT, INTERSTATE NATURAL GAS ASSOCIATION OF AMERICA

Mr. Chairman and Members of the Subcommittee: Thank you for inviting me to testify today. I am Donald F. Santa, Jr., President of the Interstate Natural Gas Association of America (INGAA). INGAA represents the interstate and interprovincial natural gas pipeline industry in North America. INGAA's members transport over 90 percent of the natural gas consumed in the U.S., through a 200,000 mile pipeline network. In addition, the association's members include the owners of all of the existing liquefied natural gas import terminals in the continental U.S., as well as the developers of several proposed new LNG terminals.

INGAA appreciates this opportunity to comment to the Subcommittee on the importance of enacting comprehensive energy legislation that addresses natural gas supply and infrastructure challenges. Infrastructure—which includes pipelines, storage and LNG import terminals—is a critical element in addressing the higher natural gas commodity prices we are experiencing today. During peak demand periods, a robust infrastructure can mitigate market price volatility and help ensure that everyone who needs natural gas can get it at reasonable prices.

According to a July 2004 study sponsored by The INGAA Foundation, Inc., approximately $61 billion of investment in new transmission pipeline and storage infrastructure will be needed by 2020 to keep pace with shifting supply sources and growing demand for natural gas in North America. This figure includes the Alaska Natural Gas Pipeline and pipeline expansions in Canada that would be needed to serve U.S. markets. The Alaska project and Canadian expansions, however, represent less than half of this total investment; **a majority of the investment will be needed for transmission pipeline systems and storage facilities in the Lower 48.**

Even as the Federal Energy Regulatory Commission (FERC) has made great strides in improving its performance, the approval and siting of natural gas infrastructure has become problematic in recent years due to conflicting federal laws and the ability of other federal and state agencies who administer these other statutes to delay or even halt new infrastructure development. This situation can be addressed conclusively only by the Congress acting to ensure that there is a single coherent and comprehensive process for reviewing, approving and siting natural gas infrastructure used in interstate and foreign commerce. INGAA supports establishing a consistent set of general procedures that would apply with equal force to interstate natural gas pipelines, interstate storage facilities, and LNG import terminals. INGAA's recommendations include:

- Establishing FERC's clear authority as the "lead agency" under NEPA for approving natural gas pipeline, storage and import facilities and FERC's authority to prescribe the schedule for all Federal and State administrative proceedings commenced under the authority of Federal law.
- Requiring that the FERC administrative record be used as the exclusive record for all subsequent administrative and judicial appeals of actions by other agencies involving a project authorized by FERC.
- Expedited judicial review of permitting decisions related to FERC-approved natural gas projects, in which unreasonable delay or conditioning of permits is alleged.
- Providing a federal forum in which to raise allegations that State tax policies discriminate against interstate natural gas pipelines.
- Clarifying Natural Gas Act section 3 authority for siting natural gas import facilities.
- Codifying FERC's "Hackberry" policy for the regulatory treatment of LNG terminals..

WHAT WILL HAPPEN IF THE INFRASTRUCTURE IS NOT EXPANDED?

Inadequate natural gas infrastructure will result in both higher average natural gas prices and far greater price volatility, both of which would negatively affect consumers and the nation's economy. It is important to emphasize that, even if natural gas supplies are adequate, bottlenecks in the natural gas transportation infrastructure will cause natural gas prices to be higher and more volatile than otherwise would be the case.

The INGAA Foundation study attempted to quantify the consumer costs associated with delays in constructing necessary natural gas infrastructure. The analysis assumed a two-year delay in all pipeline and LNG terminal construction and estimated that the cumulative cost to consumers in the form of higher natural gas commodity prices would be $200 billion by 2020. Higher natural gas costs would be seen in all parts of the country. This analysis assumed that needed infrastructure eventually would be built, albeit after a delay. Should obstacles result in the abandonment of necessary expansions, the cost to consumers would be even greater.

This is an important point for the Congress to bear in mind as it considers proposals for streamlining the approval and siting process for natural gas infrastructure. While the opponents of natural gas pipeline, storage and LNG projects may assert that the status quo (i.e., no action) is a risk free alternative, economic analysis strongly suggests otherwise. Natural gas is a commodity that must be moved through a transportation network in order to reach consumers and, unlike other fuels, natural gas cannot practicably be transported within North America using modes of transportation other than pipelines. If the pipeline delivery network is insufficient, all consumers will pay higher prices for natural gas and the products made using natural gas as a fuel or feedstock (e.g., plastics, fertilizers, aluminum, and electricity).

WHAT ARE THE OBSTACLES TO INFRASTRUCTURE EXPANSION?

The Natural Gas Act (NGA) requires the proponents of interstate natural gas pipelines and most storage facilities to seek an authorization from FERC that the proposed new facility is in the public convenience and necessity. FERC overall is doing an excellent job reviewing applications for these infrastructure improvements on a timely basis. Pursuant to the National Environmental Policy Act (NEPA), FERC coordinates with the various other federal, state and local agencies that are responsible under other laws for the numerous environmental and land-use permits that must be obtained prior to constructing a natural gas pipeline or storage facility. Unfortunately, some federal and state agencies have chosen not to become fully engaged in the FERC NEPA process, and instead have waited until after FERC has made a determination in favor of the proposed project before beginning their work in earnest. This greatly adds to the time required to obtain all necessary authorizations to construct such projects and increases the likelihood that such other permitting agencies will impose conditions at odds with the authorization contained in the FERC certificate of public convenience and necessity. This disjointed process presents a tempting target for the opponents of natural gas infrastructure development and creates the opportunity for parochial concerns to trump FERC's overall determination, made following a careful balancing of competing concerns, that the proposed project is required by the greater good.

The Natural Gas Act confers on FERC broad, preemptive authority in the approval and siting of natural gas facilities used in interstate commerce. This was done in large part to prevent one state from thwarting the construction of infrastructure that meets the broader public interest for a multi-state region. Where state law and regulations have come into conflict with the NGA, the federal courts (including the U.S. Supreme Court) have held that states are preempted in matters under the FERC's jurisdiction. Since the 1942 amendment of the NGA to add certificate authority to section 7, however, several federal statutes have been enacted that provide other federal agencies with the authority to issue permits required for constructing natural gas pipelines and storage facilities and, in some cases, these statutes have delegated such permitting authority to the states. Examples include the Coastal Zone Management Act (CZMA) and the Clean Water Act (CWA). Although state regulatory action typically would be preempted where it conflicts with the exercise of federal authority pursuant to the NGA, state action pursuant to federally-delegated authority presents a different legal question. Pipeline opponents, abetted by state government officials, have, in recent years, taken advantage of this situation by using the permitting authority under the CZMA and/or the CWA to frustrate pipeline projects already found by FERC to meet "the public convenience and necessity."

This end result would appear to fly in the face of the Congressional intent to provide FERC with exclusive authority over pipeline construction approvals and the purpose of the Commerce Clause of the U.S. Constitution to preclude states from erecting barriers to interstate commerce. It is unlikely, however, that this problem can be satisfactorily resolved by the courts, because legally the conflict is between competing federal statutes. Only the Congress is in the position to address this growing inconsistency conclusively.

PIPELINE LEGISLATIVE RECOMMENDATIONS

INGAA's recommendations deal primarily with improving and rationalizing the process for authorizing interstate pipeline, storage and importation infrastructure. Several of these provisions are part of the discussion draft being considered today, including using the FERC record for subsequent appeals of FERC-approved projects (Section 330) and creating an expedited appellate process (Section 1442). INGAA's recommendations are as follows:

1) Clear Authority for FERC to be the Lead Agency for NEPA, and to Establish the Schedule for all Federal and State Administrative Proceedings Commenced Pursuant to Federal Law.

For decades, it has been accepted that FERC is generally the "lead agency" for purposes of environmental reviews required under the National Environmental Policy Act (NEPA) for an interstate pipeline proposed under section 7 of the NGA. Under FERC procedures, other federal and state agencies with relevant permitting responsibilities are solicited to review the proposed pipeline, make suggestions for mitigating environmental impacts, and reach agreement on permitting decisions. The process is inclusive, and under a recent Memorandum of Understanding, relevant federal agencies are encouraged to work together, concurrently and cooperatively, to reach decisions in a timely manner.

Recently, however, some federal agencies have questioned whether FERC is really the "lead agency" for NEPA reviews, and whether there should be "co-lead agencies" instead. Of course, the concept of a "co-lead agency" would undermine the purpose of having a "lead agency" in the first place.

In addition, some permitting agencies, as mentioned previously, have chosen not to participate in the FERC NEPA review process, and instead have waited until after FERC makes a decision regarding approval of a project before weighing in on the permitting questions subject to their authority. Since these permits are a necessary requirement for pipeline construction, even projects that have been approved by the FERC can be thwarted by such agency's "last-minute" objections. This allows a single state agency (or the regional office of a federal agency) to block the construction of a federally-approved, multi-state pipeline.

Although Congress largely would be clarifying what, until recently, was the accepted practice, a clear Congressional mandate that FERC is the lead agency for NEPA reviews relating to projects seeking authority pursuant to section 3 or section 7 of the NGA would send a powerful signal. In addition, FERC should be given clear authority to establish an administrative schedule for the NEPA review and associated permitting decisions by all of the relevant federal and state authorities. This would ensure a single, coordinated and comprehensive approach for reviewing a proposed natural gas project, rather than the current duplicative and multi-layered reviews that present a tempting target for the opponents of natural gas infrastructure development, add unnecessarily to the time required to obtain all necessary authorizations to construct such projects, and increase the likelihood that such other permitting agencies will impose conditions at odds with the authorization contained in the FERC certificate of public convenience and necessity.

It is worth clarifying what this proposal is not. This proposal does not usurp or change federal and/or state agencies' existing authority over the substantive issues now entrusted to them. It would merely require that a relevant federal or state agency exercise its authority within a reasonable timeframe, and do so in a cooperative fashion with FERC and other agencies. In short, states would retain their existing, federally-delegated authority under such statutes as the CZMA and the CWA.

2) Use the FERC Administrative Record as the Exclusive Record for all Subsequent Appeals or Reviews.

This proposal complements the preceding proposal and addresses two, related problems. First, as noted, other agencies at times have "sat-out" the FERC NEPA review and then subsequently conducted their own proceedings to administer their respective permitting authorities. Second, in connection with such proceedings, these agencies develop a separate administrative record.

The current, fragmented process is administratively inefficient, because it duplicates a task that could be performed more efficiently and consistently through one NEPA review. Multiple records add to the time required for obtaining all of the authorizations required to construct the pipeline and increase the likelihood that the permitting agency will base its decision on a record that is inconsistent with that assembled as part of the FERC process. One example of such needless duplication is the administrative appeal process under the CZMA, pursuant to which the Department of Commerce has chosen to create de novo a new administrative record when reviewing appeals from consistency determinations made by state agencies. Substantively, the current process increases the likelihood of an inconsistent result on the merits. This process also is susceptible to manipulation by natural gas infrastructure opponents, who may choose to "sandbag" the FERC process and then "pour it on" in a state or local forum that they perceive to be more sympathetic to their views.

Two benefits would be achieved by requiring that the record developed during the FERC NEPA process be used as the record for all subsequent administrative appeals and judicial review from actions by agencies issuing permits in connection with a FERC-approved natural gas project. First, this would expedite the processing of such permits and any subsequent appellate reviews. Second, this would create a powerful incentive for such permitting agencies (as well as various stakeholder groups) to participate meaningfully in the FERC NEPA process in order to ensure that their views were reflected fully in the single record developed in connection with the proposed pipeline project.

3) Expedited Judicial Review of Matters Related to FERC-Approved Natural Gas Projects, in which Unreasonable Delay or Conditioning of Permits is Alleged.

This proposal complements the preceding two proposals by addressing judicial review. Should a federal or state permitting agency acting pursuant to federal law either fail to act within a reasonable timeframe or else attach unreasonable conditions to a permit that has the effect of frustrating a FERC-approved project, there must be a clear process for timely judicial review.

The proposed amendment would authorize expedited review by the U.S. Court of Appeals for the D.C. Circuit in these circumstances. Should the court determine that the permitting agency was unreasonable in its denial of a permit, its conditioning of a permit or its failure to act on a permit application, the court would be able to authorize the construction and operation of the pipeline as approved by the FERC and determine that all applicable federal statutory requirements had been met.

4) Federal Forum for Challenging State Tax Policies that Discriminate Against Interstate Natural Gas Pipelines.

Federal law currently protects interstate rail carrier, motor carrier, and air carrier transportation property from state property taxes that unreasonably burden and discriminate against interstate commerce. Pipelines are the only mode of interstate transportation that does not enjoy this protection under federal law.

Under federal law, a state may not assess rail transportation property (49 U.S.C. § 11501), motor carrier transportation property (49 U.S.C. § 14502), or air carrier transportation property (49 U.S.C. § 40116) at a value that has a higher ratio to the true market value of the property than the ratio that the assessed value of other commercial and industrial property in the same assessment jurisdiction has to the true market value of the other property. A state also may not levy an ad valorem property tax on the transportation property at a tax rate that exceeds the tax rate applicable to commercial and industrial property in the same assessment jurisdiction.

The benefit of federal protection can be easily demonstrated by observing its effect in Ohio. Currently, the tangible personal property of railroads, motor carriers, air carriers and water transportation is assessed at 25 percent of true value. The tangible personal property of natural gas pipelines is assessed at 88 percent of true value. This represents an assessment 352 percent greater than other modes of transportation.

With federal protection similar to that enjoyed by other modes of transportation, interstate natural gas pipelines would be authorized to bring an action challenging such discrimination in federal court. A showing of competition would not be required. The proof required would be that other commercial and industrial taxpayers are assessed at a lower rate.

This matter is within the jurisdiction of the Judiciary Committee, and legislation addressing state tax discrimination directed against pipelines (H.R. 4726) was introduced in the previous Congress by Representative John Carter. The pipeline industry has been advocating the equalization of state tax policies regarding interstate pipelines for almost 20 years. We ask that Congress bring fair resolution to this issue by including Rep. Carter's proposal in comprehensive energy legislation.

LIQUEFIED NATURAL GAS

The tight natural gas supply situation has caused a reemergence of liquefied natural gas (LNG) as a viable supply alternative. Access to LNG on the world market can serve as a "safety valve" on high domestic natural gas prices. U.S. natural gas prices are, at the moment, some of the highest in the world, and new LNG imports could mitigate some of this. A significantly increased role for LNG as part of the natural gas supply mix is an inescapable reality for the United States, even if we can increase North American supply by moderate levels. This is why INGAA supports the expansion of LNG import capacity.

Despite the importance of LNG, however, it should not be mistaken as a "cure all" that alone will solve the nation's natural gas supply problem. Our current natural gas supply challenges will not be solved *only* by expanding production in the Rocky Mountain region or the Outer Continental Shelf, or *only* by building an Alaska natural gas pipeline, or *only* by importing more LNG. In order to meet anticipated demand, the United States will have to adopt a portfolio approach that takes advantage of all these options.

The most significant immediate challenge facing the LNG industry is public perception regarding safety and security. Fear of the unknown appears to be the greatest hurdle, followed closely by the various misconceptions about LNG. Such misconceptions are difficult to overcome. All of us—industry, regulators, the Executive Branch and the Congress—have a role to play in educating the public, so that we can make informed decisions about constructing needed energy infrastructure.

Are there risks associated with LNG? Of course there are. Still, just as with any activity, this must be placed in perspective. LNG has a long and outstanding safety record. The robust worldwide trade in LNG that takes place every day is proof that LNG can be handled safely and securely. And here in the United States, FERC and the Coast Guard, working with the Department of Transportation's Pipeline and Hazardous Materials Safety Administration, can mitigate risk to an even greater extent through their safety/security regulations and enforcement. We need your help, and your leadership, in getting that message out to the public.

Another challenge for new LNG terminal expansion is the regulatory process for both terminal construction and any subsequent economic regulation. FERC has done an exemplary job on both of these fronts, but further guidance and statutory clarification from Congress will increase FERC's effectiveness in this area. INGAA's legislative recommendations include the following:

LNG LEGISLATIVE RECOMMENDATIONS

1) Clarification of Natural Gas Act Section 3 Authority for the Siting of Natural Gas Import Facilities.

Over the last year, some have questioned whether FERC has the statutory authority to site LNG import terminals. Section 3 of the Natural Gas Act states that: "no person shall export any natural gas from the United States to a foreign country or import any natural gas from a foreign country without first having secured an order from the Commission [FERC] authorizing it to do so."

INGAA believes that FERC has gotten it right on both the law and the policy with regard to LNG import terminal siting authority. The federal appellate courts have interpreted the NGA to provide FERC with the authority to site an LNG import facility and to attach the necessary conditions to its determination. If siting of these LNG facilities were left to states only, they would almost certainly be subject to inconsistent regulation. Additionally, if these facilities were subject to traditional public utility regulation or other burdens they likely would not be constructed at all. The nation as a whole would suffer if the ability to enhance the capacity to import this critical source of supplemental natural gas supply were frustrated. FERC jurisdiction is important to ensuring that the larger, national public interest is served, rather than just local, parochial interests.

Some have suggested that a clarification of this authority would usurp states rights and/or create new powers for FERC. INGAA believes that, in exercising exclusive jurisdiction over the siting of LNG import facilities, FERC is acting within the bounds of the authority already conferred by the Congress under section 3 of the NGA. Still, to the extent that it would "clear the air" and permit worthy LNG projects to proceed without what may be perceived to be a cloud over jurisdiction, such an amendment would be good public policy.

Let us be clear about the role of state agencies under this process. States currently have significant permitting authority delegated to them under federal statutes such as the CZMA and the CWA. *INGAA does not propose that this authority be removed.* We ask only that there be a single, coordinated review process that includes all of the relevant stakeholder agencies, and that once permitting reviews and decisions have been completed, the FERC be given the final say as to a terminal's approval and/or siting.

2) Codification of FERC "Hackberry" Policy for the Regulatory Treatment of LNG Terminals.

In 2002, FERC issued the "Hackberry" decision in which it waived the longstanding policy that LNG facilities must be subject to the same open access policies that apply to interstate natural gas pipelines. This order responded to the assertions by a number of LNG terminal developers that "open-access" and "open-season" regulation would be an impediment to financing and developing new LNG terminals. Statutory codification of this policy would send the signal to developers, and the financial community, that these regulatory changes will remain in place over the lifetime of an LNG project, and thus help to encourage additional terminal development. In addition, the policy should be extended to both proposed terminals, and capacity expansions at existing terminals. The discussion draft addresses this issue in Section 320.

CONCLUSION

Mr. Chairman, INGAA appreciates the opportunity to share its views on the aspects of comprehensive energy legislation that directly and uniquely affect the interstate natural gas pipeline industry. After years of debate and negotiation, the need for legislation to address national energy policy has never been greater. The natural gas supply and infrastructure situation, in particular, is crying out for policy solutions. We hope that in the weeks ahead we will be able to work with you in enacting an effective energy bill. Thank you.

Mr. HALL. Thank you, Mr. Santa. We are going to have a vote, shortly, but I am going to get underway with my questions. We will probably stay here while the others go to vote and try to keep the continuity going if we can. I will start out, Mr. Cavaney. Some people have claimed that oil companies and gasoline refineries knew about the potential issue of groundwater contamination with MTBE and that the government was not informed about them. I guess the question is, is this true? And what is your position on that?

Mr. CAVANEY. Mr. Chairman, that is not correct. If you look back at the public record, API reported for the first time in a 1983 study cited the potential for this to occur. EPA also produced several reports during the 1980's that cites the same thing, as did several other national organizations. Most important among these is EPA had a blue ribbon panel on oxygenates, and in their final report that they put out, they clearly identified the potential to expect more contamination as a result of the adoption of RFG and the use of MTBE in there. So it was very well understood by everyone that MTBE was going to have to be used in large volumes. The industry had used MTBE before, but for a very different purpose and very small volumes. So the combination of large volumes and this evidence out there of the contamination problem was why the industry proposed going to this 2-percent oxygenate mandate, because of what we knew was going to happen.

Mr. HALL. This will be to Mr. Olson. You state on page 7 of your testimony: "the NRDC does not support an ethanol mandate." Why is that?

Mr. OLSON. We believe that there should be encourage for biomass-based, renewable fuels. We feel that, certainly, biomass-based ethanol has enormous potential to encourage renewable fuels, but we don't think that an ethanol mandate necessarily is a good idea.

Mr. HALL. Mr. Dinneen.

Mr. DINNEEN. I was hoping you'd come to me.

Mr. HALL. You mentioned that you hope that the committee would consider an accelerated schedule for the RFS; you also mentioned that you hope Congress will seek to maximize the volume of ethanol in the RFS. And the question is do you mean that you are looking for an RFS with a number greater than 5 billion gallons on an accelerated schedule?

Mr. DINNEEN. When we were debating what the number for an RFS should be 4 years ago, when our industry was barely producing 2 billion gallons, 5 billion looked like an awful big number, and one that would drive significant economic development across rural America. Congress's failure to act to get the energy bill done over the past several years, leaving current law in place, with States phasing out the use of MTBE, has left our industry in the position of having to build far more ethanol capacity than we would have otherwise, so as not to allow refiners to be short ethanol supply or oxygenate supply. We did that. And I think the fact that were able to expand as rapidly as we did should not be penalized by having a schedule out there that doesn't reflect the new reality. Now having said all that, Mr. Chairman, a 5-billion gallon RFS would certainly be a step in the right direction. It would push this country down the path of reducing our dependence on imported oil and creating more sustainable energy for our future. Do I think that the number should be larger? Yeah, I do. But this is a process; I recognize that.

Mr. HALL. Larger than 5 billion?

Mr. DINNEEN. Certainly our track record would demonstrate we can produce more than 5 billion gallons, if asked, and I think that where our energy situation is today, I hope that Congress asks us because we will be able to——

Mr. HALL. The current price is $3.2 billion. And you expect that to escalate over what period of time?

Mr. DINNEEN. I am sorry, Mr. Chairman.

Mr. HALL. What period of time do you expect the increase of the present $3.2 billion——

Mr. DINNEEN. Well, as I noted in my testimony, there is 750 million gallons of production capacity that is under construction today that will be online in next year. That will bring the industry's total production capacity to some 4.4 billion gallons by the end of this year. By 2012, certainly, we can produce more.

Mr. HALL. My time has expired. I recognize Ranking Member Boucher, the gentleman from Virginia for 5 minutes.

Mr. BOUCHER. Well, thank you very much, Mr. Chairman. And I want to say a word of welcome to our witnesses today. We did not have opening statements in view of the fact that this is a continuation hearing on the one which we had last week, but I do want to thank all of you very much for taking your time to share your views with us this morning.

Mr. Olson, let me begin with you. I have observed your written statement very carefully, and I did not see something in your statement that, frankly, I expected to see, and that was the same objection that you posed 2 years ago to the provision in the conference agreement that would give the FERC the authority to site transmission lines on private land.

2 years ago at this time, we were considering a provision that would give the FERC back-stop authority to site not only on private lands, but public lands as well, and the conference agreement removed the part respecting siting authority on public lands. That would remain within the discretion of the Federal Land Management Agency. But the conference agreement does constitute a major change in the way the powerlines are sited today, because with respect to private lands, no longer would the States be in total control of decisionmaking; and the State's authority to apply environmental requirements and assess the effect of a powerline on a variety of State-related values would then not be the final determiner of whether or not the powerline is cited. I, personally, think that our hearing record is devoid of clear examples of need. I have seen no example where the State has acted inappropriately with respect to considering powerline siting.

Now, that is my personal view. Obviously, the majority view was to the contrary, because the conference agreement states as I have suggested. But I had expected to see your written statement at least reaffirm your earlier opposition to this provision of authority to the FERC. Would you care to comment?

Mr. OLSON. I would be happy to submit. We have got a statement on this very issue that we can submit to the record.

Mr. BOUCHER. Well, what is your statement?

Mr. OLSON. I don't believe that our position has changed.

Mr. BOUCHER. All right. So it is the same. Thank you. Happy to hear that. Mr. Norlander, let me ask a couple questions of you, if I may. Do you believe that the market-manipulation provisions that are contained in the conference agreement are adequate? I would note that the conference agreement bars round-trip training, but it doesn't address the broader fraudulent and manipulative practices that can be engaged in, and I am wondering if you are of the view that we ought to be a little more comprehensive in our approach and consider things beyond round-trip trading?

Mr. NORLANDER. Yes, I think that if the statute is going to establish a market-rate regimen, then the regulator ought to be able to regulate the market and the participants, and there should be a larger bar on manipulation. I would point out that the bill would increase criminal penalties and so forth for a manipulation act. I think that would mean, certainly, that with stiffer penalties and potential criminal prosecution, that anyone involved in that type of activity might be advised not to talk; and so therefore, there may also be a need to look further at recordkeeping and documentation requirements.

Mr. BOUCHER. A number of us on this side of the committee in the last Congress put forward a separate item of legislation that would essentially outlaw any "fraudulent, manipulative or deceptive practice that would be in contravention of the rules of the FERC, where the rules are designed to prevent market abuse." Would you endorse such an approach? I mean is that the right language? Or you do have another formulation.

Mr. NORLANDER. I think that is certainly in the right direction. I think the problem comes, also, perhaps the larger problem, of what is the remedy when it occurs, and I think that is a very difficult issue.

Mr. BOUCHER. All right. Another question, then. Do you believe that the FERC has current authority to order retroactive refunds with respect to transactions that involve market-based rates back to the date when the FERC find that unjust and reasonable rates were first imposed?

Mr. NORLANDER. Personally, I think they should. I think it is a matter of controversy right now.

Mr. BOUCHER. Because we have a provision in the legislation that clearly delineates the authority of the FERC to order refunds back to that time?

Mr. NORLANDER. This is a huge, multi-billion issue. I think it should be addressed.

Mr. BOUCHER. How should we address it?

Mr. NORLANDER. I think the benchmark should be that this is a statute meant to protect consumers. The existing protection is that no rate will be charged that is not just and reasonable. All rate changes have to be filed 60 days in advance, subject to FERC review and intervention by people who might think it is not a good idea. Once that rate takes effect, then that is the law, and it can't be changed, except in the public interest, which is a very difficult thing to do. This bill would allow a market-based rate that has never been filed, has never been seen by anybody other than the people who signed it, to have contract sanctity.

Mr. BOUCHER. But in view of all of that, wouldn't it be a good idea to say that the—if the FERC finds that the market-based rate was not just and not reasonable, that a refund be ordered back to the time the rate was first imposed?

Mr. NORLANDER. I certainly think that would be in the interest of consumers.

Mr. BOUCHER. Thank you, Mr. Norlander.

Mr. NORLANDER. Thank you.

Mr. BOUCHER. Thank you, Mr. Chairman.

Mr. HALL. The Chair recognizes the Chairman of Energy and Commerce, Mr. Barton, a gentleman from Texas, for as much time as he consumes.

Chairman BARTON. Well, thank you, Mr. Chairman. I am going to try to stay within the 5 minutes that everybody else has to.

My question is not so much a question as it is a general statement, and I may be off a little bit on some of the numbers I am going to use, but I don't think I am off a lot. Energy demand in this country is still rising between 1 and 2 percent a year across the board, whether it is electricity or natural gas or gasoline. We are the world's largest consumer of energy. We are still a significant producer of energy, but our production is declining as a percent of our needs. If you look at gasoline demand, we produce about 6 to 8 million barrels of oil a day. We use about 12 million barrels of oil to convert it to gasoline every day. In total, we are using around 20 million barrels of oil a day, and we are only producing 6 to 8, so we need to do something on energy, and it needs to be a combination of conservation and research, but some of it should be production oriented. Now, the discussion draft that has been put out for review for this subcommittee and full committee is basically the conference report that came out of the House and Senate negotiations last year, which is basically a distillation of the conference report that came out of the House and Senate 2 Congresses ago, that was never voted on. It is not a perfect bill, but it is a very good start. Now, the votes are there to move that bill to the floor tomorrow. We can move it out of this subcommittee this afternoon; we can meet with the full committee next week and have it on the floor and pass it. That is a fact. That is a fact. But if we do that, we are going to have a bill that we get almost all of the Republicans on in the House and almost all of the Republicans on in the Senate, and some Democrats in the House, some that are sitting on this dais and some Democrats in the Senate, and I would much rather have a bill that we get 275 to 300 votes in the house and 60 to 70 votes in the Senate, that is a bipartisan bill. Most of you have testified before this subcommittee or full committee several times in the last 2 to 3 years. I would hope that we could agree that we want a bill and try to find ways to come together and not keep throwing the same rocks at the same issues. To those of you that represent the environmental groups, I am very proud that you are here. It would be nice if you decided to try to be constructive and positive. It can't be too much fun throwing the same rocks every year and not getting anything done. It would be a lot better to come inside the fence and sit down; you might find out that myself, Mr. Hall, and others on our side are not the devils that you think we are. I am amazed when I am quoted as I am trying to gut the Clean Air Act or rape and pillage the environment. Nothing could be further from the truth. But if that helps raise dollars for various environmental groups, so be it. I am okay with that. I am not going to ask real specific questions, other than to state that we have a real chance to take a bill that has been worked on for years and years and years, to improve it because of new things that have come up, and there are some new things that have come up, mark it up in committee, mark it up on the floor, get the Senate to do something, and then go to conference and have a bill that everybody can be a part of. You know what? That is what I want to do. We need to do something, and this discussion draft, which is a distillation of what we have worked on for years and years and years, is, by itself, worthy of being voted on if we can't reach any kind of an agreement.

Now, let me say something about MTBE because that seems to be one of the issues that we are going to have to address. I am very interested in finding a compromise on MTBE, but it continues to puzzle me that people seem to think that MTBE is the only thing that leaks out of these underground storage tanks, and somehow MTBE is something that is able to transport itself. It is in gasoline. If the tank leaks, everything in the gasoline is going to leak. If I have a dog that I don't do anything to control, and the dog goes over in my neighbor's yard and bites my neighbor's son or daughter on the bottom, I should be held accountable that I didn't do anything to control my dog, not just go ahead and shoot the dog and say, you can never have a dog again. If we want to find a way to compensate States that have serious leakage problems, I am all for that. If we want to set up some sort of a trust fund that, when you have a legitimate claim, and you can show there has been contamination, I am all for that. What I am not for is just saying MTBE is something that is bad, and so we shouldn't even allow it, period, and it should be banned, and anybody that ever manufactured it or thought about manufacturing it is going to be held liable forever and ever. That is just not acceptable. So Mr. Chairman, I want to thank you for holding this hearing, and I want to tell everybody in this room: this is the year to work together to get a comprehensive energy bill where everybody wins and everybody gives some, but we put a bill on the President's desk that can get the 300 votes in the House and the 60 or 70 votes in the Senate. That is a very doable deal; there are no show-stoppers. But if we can't do it that way, we will move a bill and do the traditional tug-of-war, which unfortunately has created the stalemate the last 2 Congresses. Thank you, Mr. Chairman.

Mr. SHIMKUS [presiding]. Thank you, Mr. Chairman. And now, I would like to recognize my colleague from Texas, Mr. Gonzalez, for 5 minutes.

Mr. GONZALEZ. Thank you very much. My question—and I am hoping everyone is listening to what the Chairman is trying to tell everyone, because I really believe there can be a compromise. My question will go to Mr. Olson, and then I will have a question for Mr. Slaughter, because it is about MTBE.

I guess the troublesome aspect of this is I know that there is a problem; however, if you have a product that is manufactured, that is sanctioned and certified by the EPA, pursuant to applicable law, and then the use of it somehow contaminates and cases damages, it is really hard under most common-law, statutory, regulatory, administrative theories of responsible behavior, to tie it into the manufacturer.

I guess the most troublesome aspect of what you have indicated was it will only be the mom-and-pop convenience stores and such. If they were the ones that were negligent, ill-advised, or whatever, they won't have any deep pocket. But that has never driven legal thought or theory in this country. I know it is convenient—we always look for deep pockets and see if we can get the nexus—but this is a really a stretch. And generally, you know, I often oppose what comes under guise of tort reform and such, but when it comes—this is absolute. This is beyond strict liability, and I failed to see that. So I would like for you to clarify the statement that—

you know, if we don't have this kind of liability, then we won't have anyone that will have the financial means to address the damages and the remedial expenses. But is that the whole logic of your thought and that is we should incur liability, simply because you have the ability to address the problem that has been created by someone else's negligence?

Mr. OLSON. Well, the short answer is no. The major case that addressed this issue, which was the Tahoe case, and I would like submit to the record the special verdict that came out in that case. It is only about 4 or 5 pages long. What they found was that several of the members of the petroleum industry acted with malice in not disclosing, in not warning, in failing to address the issue and provide that information to the public and to the folks in the chain of commerce.

So it is not just an issue of who has a deep pocket; it is also a finding and I think this is being repeated across the country that the industry acted in a manner that was inappropriate. In this case, they found the industry acted with malice in not disclosing those risks that they knew about and weren't being fully disclosed to rest of the public. So I think that was the basis of it, and this ought to be left up to the courts to decide, rather than Congress stepping up and saying "we are just going to resolve this once and for all." We think it ought to be up to the courts to decide, and you know, Democrats and Republicans at the State level and at the local level are addressing this very difficult issue, and many Republicans, as well as Democrats, decided they will go forward with this litigation on behalf of local water supplies that are contaminated because of the problem.

Mr. GONZALEZ. The problem that we have, of course—and I understand it varies from State to State and what has happened in California, Connecticut, New York and so on. But if you have this patchwork and piece-meal approach, then we don't have a national energy policy that is going to make any sense, if we allow the essential part or provision of it to be frustrated by interpretation of a particular liability law. So again, I appreciate what you are saying, but I think what Chairman Barton is saying—well, let us address the concern that you have. How do we remediate? How do we address the damage and such? And Mr. Slaughter, the remaining time I have, I would just address to you, would you like to respond to anything that Mr. Olson may have said or any—or the statement that Mr. Barton had or my question?

Mr. SLAUGHTER. Well, thanks, Mr. Gonzalez. What I would say: the South Lake Tahoe case was not a final judgment case. It didn't go to a final judgment; it was settled, and is not precedent. That was a partial finding in that case. But 96 percent of the underground storage tank spills are cleaned up and paid for by private funds, and through responsible parties, State insurance funds, and private insurance—96 percent. And the MTBE situation is no different from any other UST underground storage tank situation. Ninety-six percent will be paid for by responsible parties. Four percent, where responsible parties cannot be located, will be paid for through the underground storage tank fund that was set up by Congress in 1986, specifically for purposes like that. That is only 4 percent, Mr. Gonzalez.

I mean the important thing here is to say there is problem; responsible parties, where they are determined, are cleaning up that problem. There is a vast amount of remediation work going as we speak. So we have got people here who are trying to inflate a situation and set up a liability situation that, as you rightly point out, is based only upon the fact that some parties obeyed the law and helped make the Clean Air Act Amendment for a formulated gas program actually work.

Mr. GONZALEZ. Thank you very much.

Mr. SHIMKUS. The gentleman's time is expired. The Chair recognizes a gentleman from Pennsylvania, Mr. Murphy, for 5 minutes.

Mr. MURPHY. Thank you, Mr. Chairman. As the—I—we have a vote. I am going to just ask one question and ask a couple of people to respond to that, quickly. But it seems, now, we cannot talk about our energy issues without looking at them as international issues, and certainly—one of them being natural gas, is one that has reached around the world—just as we now look back after World War II—economically, Germany and Japan were big winners of World War II—now it is, with the cold war, Russia will be a big winner when it comes to a natural gas production and liquefied natural gasses. I want to look at some—I want to ask some questions about how we can solve this because I also see that coal has important mix in this. We have lot of plants that are coal fired; we have a lot of plants that are coal-fired that don't—have sufficient scrubbers on them now, and that is a concern. And yet while Washington, inside the beltway, continues to deliberate on the perfect bill, we are continuing to produce pollutants, we are continuing to become more dependent on foreign sources of oil and natural gas, and we are not solving the problem; but echoing Mr. Barton's comments here, we certainly have found ways for organizations to continue to criticize Members of Congress.

I want to ask a couple of questions on the issue about natural gas. As we are—and some of the comments made, I think Mr. Fuller made, about the—and certainly others made, we have plenty of natural gas in this country. We just can't get to it. But I want to ask, in turn, some environmentally sensitive issues here, too, because I believe that all of you also have children and grandchildren and want—you want them to breathe clean air and have clean water and grow up in that sort of environment.

In the other countries that are producing more natural gas and shipping it over here, are their substantive difference in how they handle environmental issues in their drilling exploration and refining of some their substances that are different from our process. I am somehow wondering why is the United States always seen as the bad guy if we want to get our gas out of the ground, but we would let anything else happen around the world.

Mr. CAVANEY. I would be pleased to comment. American Petroleum Institute, API, writes, through the ASTM process, the worldwide standards for oil and gas and is recognized as being at the leading edge. We are the ones that pioneered work in the Arctic and—as a result of what happened in Alaska. We are the ones that were pioneers in the deep water area and so forth.

So to answer your question the other way, it is our technology, and it is many of the companies who operate here, some of them being foreign counties, companies that end up going abroad and pioneering the work that we do here. So the standards here are certainly, by no measure, any less than they are elsewhere. As a matter of fact, most people who travel abroad would tell you that you can come here, and you'll find some of the hardest.

Now, will there be exceptions? Of course there will be, but they tend to be things in isolation and not typically the larger companies making the larger investments, nor the really responsible companies that operate in their neighbors and in their communities and have to live with all of their neighbors all of the time.

Mr. MURPHY. Any other comments on that, natural gas, Mr. Fuller?

Mr. FULLER. I think what I would like to add to that is that I think one of the big differences is in most of the foreign countries where fossil fuels are being developed, there is a strong interest in those countries to develop those fuels, and so they move them forward. We have become a country that tends to make these issues one of adversarial conflict. We are going to fight over all of the choices that we have to make, and we have very elaborate procedures to get there.

I think, substantively, our controls are going to be better than anyplace else in the world, but I think getting to the final decision has been our biggest challenge and continues to be our biggest challenge.

Mr. MURPHY. Any other comments on that? Well, thank you. Thank you, Mr. Chairman.

Mr. SHIMKUS. The gentleman yields back his time. We are going to recess in place for 10 minutes. Chairman Hall is on his way back. We have votes. Ranking Member Boucher have—and I have about 2 minutes to get back over to the floor and vote, so if you would, rest in place, as we said in the military, and we will pick it up as soon as the chairman gets back.

[Brief recess.]

Mr. HALL. I thank you for your patience and recognize the gentlelady from California, Ms. Capps, for 5 minutes.

Ms. CAPPS. And I thank Mr. Chairman; I thank you for recognizing me. Mr. Olson, I would like to get clearly on the record some of things you referred to or mentioned in your opening—your testimony. If I understand it correct, the oil companies knew in the mid-1980's that MTBE would contaminate groundwater. Is that correct.

Mr. OLSON. That is right.

Ms. CAPPS. Would you elaborate a little bit on that? What is the documentation for that?

Mr. OLSON. Well, there are quite a few documents in my testimony and links to some of them. One of them that I think is particularly interesting was a 1987 memo from ARCO, which detailed their attack on a Maine study that was done that showed that was some contamination and they say "Since the paper was presented last November, we have been working with API, the newly formed MTBE committee, and on our view to access the potential impact of this paper on State policymakers and to contain the potential damage from the paper."

Ms. CAPPS. Thank you. Now, using industry data, it appears that in 1986, the industry was adding 54,000 gallons of MTBE per day to gasoline. Is this correct?

Mr. OLSON. That is right.

Ms. CAPPS. And just to confirm that is about right, I have a letter here from Mr. Cavaney that he sent to Representative Henry Waxman, dated June 21, 2000, in which he stated that oil refiners added 72,800 gallons of MTBE to gasoline per day in 1989. Are you aware of that letter as well?

Mr. OLSON. Yes, I am aware of that letter.

Ms. CAPPS. And so Mr. Olson, the industry argument that MTBE was added to gasoline because of a mandate by the Clean Air Act Amendments of 1990 simply could not be true. Correct?

Mr. OLSON. Right.

Ms. CAPPS. But because by 1998 the industry was putting tens of thousands of gallons of MTBE in the Nation's gasoline supply every day, so even if we had never changed the Clean Air Act, there would be millions of gasoline—of MTB—gallons of MTBE already being put into gasoline, so there is no—really no reason to believe that oil companies would have stopped using MTBE. Is that correct?

Mr. OLSON. I think that is right.

Ms. CAPPS. And did the industry representatives tell people that MTBE was dangerous? Did they oppose the Clean Air Act Amendment of 1990 on the basis that it would increase the use of MTBE and threaten groundwater supplies across the country? I mean they knew, didn't they, that there was a danger to groundwater from MTBE?

Mr. OLSON. They did know; that came out in the litigation. And they did not oppose the Clean Air Act Amendment requirements.

Ms. CAPPS. Did they warn people that MTBE could contaminate groundwater at that time, in 1990?

Mr. OLSON. Yes.

Ms. CAPPS. Were they—what were they telling people in 1990?

Mr. OLSON. Well, they were really not being forthright with the facts about how risky MTBE was.

Ms. CAPPS. So the argument that the Clean Air Act mandated the use of MTBE is simply not accurate. It had been in use before that time.

Mr. OLSON. It had been in use before then.

Ms. CAPPS. And in fact, a California jury had found that the oil companies had acted—and this is a quote—"with malice—"

Mr. OLSON. That is correct.

Ms. CAPPS. [continuing] in introducing a product that they knew was dangerous.

Mr. OLSON. That is correct.

Ms. CAPPS. And then, in your view, is there any reason why this enormous amount of liability, estimated at around $29 billion, should be transferred from the oil companies to our drinking water systems, and hence, to the consumers of drinking water?

Mr. OLSON. The liability should be on the oil companies that knew this was a problem.

Ms. CAPPS. And finally, how widespread is MTBE contamination in groundwater supplies?

Mr. OLSON. Well, it is extremely widespread. I've put a map from the U.S. geological survey in my testimony that shows it is a national problem.

Ms. CAPPS. And so in 36 States, at least that we know of, there is—there are literally hundreds of communities that have been affected by this contamination.

Mr. OLSON. Correct.

Ms. CAPPS. Now, I want to turn to some more specific health issues. As a nurse—and I have been a public health nurse for many years—I am concerned about the potential health effects of MTBE in our drinking water supplies. And I am—wanted—I want—I know that testimony by that GAO before Congress stated that, while available data did not fully determine risk, MTBE should be regarded as a potential carcinogenic risk to humans. So we know that MTBE causes cancer in animals. Is it possible that it could cause cancer in humans as well?

Mr. OLSON. Yes, and in fact, we have quoted, in our testimony, which to that effect from EPA and GAO and others have found that.

Ms. CAPPS. And with MTBE contamination growing and the latency potency period for cancer being upwards of 20 years, why should we let, again, the oil companies immunize themselves from this large potential public health problem? Is there any public health or public end that would be served by granting them this kind of immunity?

Mr. OLSON. We absolutely disagree with the immunity. We think no end would be served except for to save them money.

Ms. CAPPS. Thank you very much, and I yield back.

Mr. HALL. Thank you. A gentleman from Kentucky, Mr. Whitfield, for 5 minutes.

Mr. WHITFIELD. Mr. Chairman, thank you, and I certainly want to thank the panel for their testimonies today, as we strive to formulate an energy bill once again. I actually was not going to talk about this, but the testimony of Mr. Hamilton—which I appreciate your testimony very much. But you touched on Kyoto, and when I think about Kyoto, I think about global warming, and when I think about global warming I think about a lot of things; cold being one of them. But the reason I want to raise this issue is that as we continue to deal with very complicated, complex issues like global warming, I think it is imperative that we try to—and I am not referring to you, Mr. Hamilton, because your testimony was very good. But I think the scientific community—it is imperative that they be accurate and talk about science when they talk about these issues.

And I raise this issue because recently one of the members of the Intergovernmental Panel on Climate Change—which, as you know, every 5 years files an assessment report of a lot of environmental issues around the world, and as a part of that, we have scientists from around the world that have various responsibilities for that report. And in October 2004, one of the lead authors, Dr. Trenberth, attended a seminar at Harvard University. He had a number of other participants in the Intergovernmental Panel on Climate Change with him, and they made some pretty conclusive statements that the increased hurricane activity we have seen recently was a direct result of global warming. And as a result of their press release, or their press conference, news stories ran all over the country, including here in Washington, D.C., about the impact that global warming was having in causing more and more hurricanes.

And then, as a result of that, a gentleman named Christopher Landsea, who was the person responsible for the scientific evidence on hurricanes and global warming's impact on hurricanes and participated in the report in 1995 and participated in the report in 2002, has sent a letter of resignation, saying that he did not want to participate with the Intergovernmental Panel on Climate Change anymore. And he made this comment: "the differing conclusions and robust debates are certainly crucial to progress in climate science; however this case"—talking about the hurricane thing—"is not an honest scientific discussion conducted at a meeting of climate researchers. Instead, a scientist with an important role in the IPCC represented himself as a lead author for the IPCC, has used that position to propagate to the media and the general public his own opinion that the busy 2004 hurricane season was caused by global warming, which is in direct opposition to research written in the field and is counter to conclusion in the studies at that time." And then, he goes on to say, "I personally cannot, in good faith, continue to contribute to process that I view as both motivated by preconceived agendas and being scientifically unsound." And I just point that out because I think that there is a lot of this going on. It seems like when we talk about science today, there is a lot of politicalization of that science on both sides.

But I do think it is imperative as we try to come to solutions to very difficult problems that we start holding people's feet to the fire on science. And I am glad to see that Michael Crighton has recently come out with a book about the state of fear in which he talks about press releases trying to scare people on scientific evidence relating to global issues. This Professor Lomborg recently wrote a book on the skeptical environmentalist, and he questioned the models being used by the IPCC and others in looking at global warming. And then you have Greg Easterbrook, who was an environmental writer for the New York Times, who wrote a book, One Moment on the Earth, and he was also questioning the models used.

So I think if we are going to come up with the best decisions, we do have to have sound science on all sides, and I hope that as we continue our debate on the energy bill as well as environmental issues, that we can keep that in mind. And with that, Mr. Chairman, I guess I don't have a question, but my statement is over.

Mr. HAMILTON. May I comment?

Mr. HALL. Well, your question was did you note. Right?

Mr. HAMILTON. May I make a brief comment?

Mr. HALL. Not at this time. The Chair recognizes Ms. Solis, a gentlelady from California.

Ms. SOLIS. Thank you, Mr. Chairman. I am quite amazed, to be honest, that we are not able to have some of these very serious discussions in our respective subcommittees with respect to the LUST program and—as well as MTBE. There are a lot of issues here that are being talked about that I really believe the public and constituents that I represent really want to hear more about. I am very concerned that we don't have representation from our local governmental entities as well as some of our water purveyors and attorneys general that I know, just a few years ago, submitted letters to this committee, outlining their concerns regarding this type of legislation, that somehow would disregard and provide for folks to get away with not having to clean up many of the contaminants that are now affecting many of the wells. For example, in my own district, we have over 100 wells that we know are polluted, and they are not exclusively polluted by MTBE, but by perchlorate and other additives that have just tended to leak into our groundwater. I am very concerned that the small mom-and-pop gasoline owners and people—even the water purveyors are having to somehow pick up the tab for a lot of the damage that I believe is being done by many of the larger refineries.

I guess my question is: how do we begin to really provide remedy for the people that—the consumers and people that some of us represent? California, unfortunately, has been plagued by this issue for many, many years, and I think has really done a good job in the last years by setting some good standards, and other States have done likewise. Is it going to the States to move the opinion of this committee in this legislature? My concerns are that the bill that will be voted on—won't have my support—doesn't even address the issue of the LUST program and the fact that there are provisions that were kept out of it. So while people were talking about "there is a consensus and this has been talked about for many years and everyone is in agreement or most of the panelists here are in agreement with the bill as it is," there is a lot of issues that have not been addressed.

I would like to ask Mr. Olson if there are some individuals and groups that are not represented here and another perspective that has not been addressed here. And then, second, regarding those provisions in LUST that I talked about, if he could, please elaborate about what that would mean to the health and welfare of our constituents.

Mr. OLSON. Well, I would appreciate to put in the record a statement that has been made by opposing anti-MTBE provision in the bill, a liability waiver from the National League of Cities, the U.S. Conference of Mayors, the National Association of Counties, the National Association of Towns and Townships, and so on, and so on, including a lot of State and local officials who are very concerned about this provision. So there are many out in the community that are very concerned about this at the local level because of enormous costs that are being put on them as a result of this.

With respect to the underground storage tank provisions, we feel strongly that we need several provisions for underground storage tanks improvements. One is secondary containment, both for pipes and for tanks; red-flagging of those tanks that are not operational or that have problems; preserving polluter pays requirements; and assuring operator training as well as routine inspections every year to perhaps every 2 years. So we think that all of that really should be part of this kind of package if we are actually going to address the widespread problem of leaking tanks.

Ms. SOLIS. Thank you. One of my questions is also, Mr. Cavaney, regarding something you said earlier in your statement about that fact that there will funds to provide cleanup through the LUST program. But can you give me what is your interpretation of who is responsible for that cleanup?

Mr. CAVANEY. Well, the LUST fund is administered, and through the process, if this bill passes, there is language that would allow people that have a concern with MTBE and they can't identify a responsible party or an insurance agent or some other way to get their money instated to cover that remediation, that they can ask the fund. Now, the fund currently has, I believe, a little over $2 billion in balance, and it receives an authorization for additional funding under this bill, I believe, of 5 years at $200 million per year to cover the funds.

One thing I would like to also point out is there is a lot of talk about this thing blossoming and getting bigger and bigger. There are some other facts here that fly in the face of that. The first of these is that what we have seen is the EPA, in their current data, shows that the new underground storage tank releases have actually decreased by 60 percent since the base-year of 1998 to 2000. Concurrent with that is the amount of MTBE produced and in storage has also been reduced about 50 percent over the same period.

And let me cite California, your State. Back in the late 1990's, there was an estimate that there would be about $1.6 billion of funds needed in order to remediate MTBE in the State. Just recently, the California Energy Commission——

Ms. SOLIS. I guess—if I could just interrupt you. My concern is in your opinion, who is liable for that cleanup? Is it the gasoline station owner or is it, you know, the individuals that produce the product?

Mr. OLSON. People who have handled and distributed the product would have responsibility, and that would be for the claimants to go ahead and impose whoever they would want to identify.

Ms. SOLIS. But we are talking about mom-and-pop.

Mr. OLSON. It can be anybody.

Ms. SOLIS. That is typically who it is, though, right? I mean that is typically who will be responsible.

Mr. OLSON. I am not sure. I do not know. I know we have a number of cases where our companies and our industry is cited, so it can include all of them as well. But the point I was trying to make is that the issue is now identified as significantly being reduced in States like California, in terms of potential remediation dollars.

Ms. SOLIS. Thank you.

Mr. HALL. Thank you. All right. Mr. Burgess, would you yield to Mr. Hamilton? I think he has a statement he wanted to make just a moment ago.

Mr. HAMILTON. Oh, thank you very much, Mr. Chairman. I was just going to say that IPCC and the efforts that are being made on climate science right now are thousands and thousands of people and that the research that is happening is really a massive effort. In any effort of that size, you may get some instances where people go over a rhetorical line or something like that. But I think that when you look at the largest mass of research, it comes up with some pretty disturbing conclusions about what is not only potentially going to happen, but has already started to happen.

Mr. WHITFIELD. If the person responsible for the research ultimately says there is no scientific evidence whatsoever and yet the lead author at a press conference emphatically stated that global warming was causing more hurricanes.

Mr. HAMILTON. Well, my understanding——

Mr. HALL. Okay. We will go back to regular order now, if we might. Mr. Burgess, recognize you for 5 minutes.

Mr. BURGESS. Well, thank you Mr. Chairman. I appreciate being part of this hearing today. I am new on the committee, and I haven't heard all of the arguments for the last—how many years have you been working on this, Mr. Chairman? 6? 10? I mean it has been awhile, and it is pretty clear to me that—I think we all have enough talking points in our satchels that we could continue this argument, certainly, through the conclusion of my natural lifetime. But I agree with the Chairman; I think there is a unique opportunity before us this year to get a bill done, and I would like to see that happen. And to that end, even—and Mr. Chairman, I would ask unanimous consent to make this available in the record. This is a——

Mr. HALL. Without objection.

Mr. BURGESS. [continuing] an editorial from the Fort Worth Star Telegram, January 24, 2005. Now, the Star Telegram is from Fort Worth, Texas. That is the largest city in my district, in North Texas. It is also a jurisdiction that is shared by the Chairman. The Star Telegram is not always a fan of things that happen in this committee, and it is not always a fan of things like drilling in the Alaskan National Wildlife Refuge; but they came out on January 24 with their editorial statement that it is time to break the logjam and that it may be time to give on proposals such as drilling in the Alaskan National Wildlife Refuge. They argue that increasing the CAFE standards ought to be a part of this compromise.

I disagree with that. I think we are better off following market forces. I am a happy driver of the Prius automobile. I held out for the Ford Escape hybrid as long as I possibly could, and it wasn't happening, so I am getting my 50 miles to the gallon and quite happy with that.

And in fact, Mr. Chairman, if I may, you know, I actually feel morally superior to other people on the road. And I think there is even a name for that now in the psychologic literature. It is called Prius envy. The point I would make——

Mr. HALL. Your time is about up.

Mr. BURGESS. The point I would make is that I do believe it is time to stop the talk and get to some action, but I can't resist, just like everyone else—now, Mr. Dinneen, you talked about the use of ethanol and a reduction of greenhouse gasses as a result of that. I am not really as smart in organic chemistry as I should be, but detail for me, if you would, what are the products of the oxygenation/combustion of ethanol with 2 carbon fragment?

Mr. DINNEEN. Well, you just got beyond my area of expertise as well.

Mr. BURGESS. Would it not be carbon dioxide and water, just to simply things?

Mr. DINNEEN. In the production of ethanol, you are growing crops, whether it is corn or wheat or sorghum or switchgrass that is taking carbon dioxide out of the air. When that fuel is then burned in a vehicle, carbon dioxide is then emitted, just like it would any other vehicle or any other fuel, but it is a closed cycle.

Mr. BURGESS. If I may, with the exception of that fuel that is expended in the growth of those crops, which is also a part of that cycle as well—I am not sure how many gallons of petroleum it takes to make a gallon of ethanol in the farming cycle, and again, I wouldn't presuppose to have that knowledge, but I don't think it is entirely free from the carbon standpoint.

Mr. DINNEEN. Well, it is not, but the studies that have been done on it show that there is a significant gain in energy when you consider the energy it takes to grow the grain, harvest it, bring it to the ethanol plant, and then process that grain into ethanol. I noted in my testimony that the latest USDA study demonstrates that the entire process yield 167 percent more energy than it takes to produce all of that. And I would be glad, Mr. Chairman, if it is allowed, to introduce the report from USDA on that issue because it is an important point.

Mr. BURGESS. And I would agree with that. It sounds like you are about as efficient as my Prius, so I will accept that. Mr. Olson, if I could ask you a question about the testimony you gave on MTBE and its carcinogenesis. Now, you said in high doses as I recall your testimony. Is that the correct phraseology? Do I have that right?

Mr. OLSON. What I said was that in high doses, it causes cancer in animals, and both EPA and many others have concluded that suggests that it may present a risk to humans at high doses.

Mr. BURGESS. Is MTBE on that famous list of cancer-causing agents?

Mr. OLSON. Well, I am not sure which list you are talking about.

Mr. BURGESS. Okay. The—what——

Mr. OLSON. There are a lot of lists.

Mr. BURGESS. Which types of cancer have been implicated as being caused by MTBE?

Mr. OLSON. Well, it depends on which study. I would be happy to submit for the record the EPA's statement that goes through all of the studies, the specific animal studies. I have got that with me, so I can certainly submit it to you.

Mr. BURGESS. Yes.

Mr. HALL. Without objection, it is in the record.

[The statement appears at the end of the hearing.]

Mr. BURGESS. And—but at the present time, there are no studies causing—drawing a direct, point-to-point line between MTBE and cancer in humans?

Mr. OLSON. I don't know of any epidemiological studies of humans, but of course, it is kind of too late at that point. People have already been exposed for 10 or more years and have gotten cancer. The idea is to try to avoid that, to avoid people being exposed and then getting cancer later.

Mr. BURGESS. But in the—what do we have already? A 10-year ti[illegible] ime [illegible] BE has been in gasoline? Going back——

[illegible] than that, yeah.

Mr. **Burgess**. [continuing] and evaluating that data, at present, we don't have that——

Mr. **Olson**. I am not aware of any epidemiological study——

Mr. **Burgess**. Okay.

Mr. **Olson**. [continuing] that has been done. There may have been one, but I am just not aware of it.

Mr. **Burgess**. All right. Very well. Mr. Cavaney, just the time that if I have left, you started to make a comment about the—about what was happening with the $1.6 billion fund that was available for California was—that was the estimated cost was, in fact, all that amount?

Mr. **Cavaney**. The was the State's estimated cost for the cleanup to remediate MTBE back in the late 1990's.

Mr. **Burgess**. And was all of that used? Did it indeed cost that much or did——

Mr. **Cavaney**. No, not at all. As I said, as they have gone forward, they found that the remediation costs and the extent of contamination is significant less, and that is why the California Energy Commission put out at reestimate. $200 million is what they have now forecast.

Mr. **Burgess**. Okay. Thank you.

Mr. **Hall**. Thank you, Dr. Burgess. The Chair recognizes Mr. Allen, a gentleman from Maine, for 5 minutes.

Mr. **Allen**. Thank you, Mr. Chairman, and thank you for agreeing to place additional materials in the record with unanimous consent. I wanted to specify a number of particular documents to be placed in the record.

First, I understand that a number of groups representing important perspectives have asked to testify regarding the MTBE liability waiver. These groups include the U.S. Conference of Mayors, the American Waterworks Association, and the Association on Municipal Water Agencies. I ask that these organizations' letters, which state their opposition to the MTBE liability waiver and would seek to testify before this committee, be included in the record of the hearing.

Mr. **Hall**. Is the gentleman aware of the fact that we have already accepted those, and they are in record?

Mr. **Allen**. I am not.

Mr. **Hall**. We will put them in there a second time if you like.

Mr. **Allen**. No, no, don't put them in a second. I—let me—well, before I go too far, let me make sure that a statement by David Baron on the bump-up provisions——

Mr. **Hall**. Yes.

Mr. **Allen**. Has that been——

Mr. **Hall**. It is in.

Mr. **Allen**. It is in? Okay. Thank you. I don't need to do that. I appreciate it. I wanted to align myself with Mr. Burgess as a superior person, I guess, since I, too, own a Prius. This is a bipartisan thing.

Mr. **Burgess**. Bipartisan superiority.

Mr. **Allen**. Bipartisan superiority. But the point I wanted to make—this is probably for another time; I do have a question that is relevant to this committee. But I am very concerned that—I waited, too. I wanted the Ford Escape. I wanted to buy an American vehicle, and they couldn't do it, and eventually, they had to essentially buy the Toyota technology. I think it is a serious problem for our competitiveness in this country that we are so far behind Toyota and Honda in developing—and frankly, the Germans with diesel—in developing more efficient fuel vehicles, and it seems to me a major problem.

I also wanted to say that one of the problems I have with this piece of legislation is that it doesn't bend the demand curve down. The hard, cold truth is that—as I understand it, is that global oil production in the last 20 years increased by 20 percent, but global demand in the next 20 years is expected to increase by 50 percent. And we sit here in the United States with 25 percent—consuming 25 percent of the world's fossil fuels with 2.1 percent of the reserves. And I just believe that we can't have a balanced energy bill unless it does something to bend that future demand curve down, and I do think it is one of the disadvantages of the particular legislation so far.

MTPBE has been a major issue in the State of Maine. I think our State, and maybe California, were the first to really find it had contaminated a number of different wells. And so the waiver provision, the liability waiver provision, is a big deal in Maine; it is a big deal in New Hampshire and number of other states.

So I wanted just to clear up a technical point. Mr. Cavaney and Mr. Slaughter, in both of your written testimony, your organizations take the position that MTBE was mandated by the Federal Government and approved by the Environmental Protection Agency as a result of the passage of the Clean Air Act Amendments of 1990. Is that correct?

Mr. SLAUGHTER. Yes.

Mr. ALLEN. According to the EPA's own rulemaking in this subject, it categorically states—it was amended in 1994. This is 40CFR, section 7921, subparagraph G, regarding additive registration procedures: "that a fuel additive may not state in any way, shape, or form that the registration of a fuel additive constitutes endorsement, certification, or approval of that additive by any agency of the United States." Indeed, it is my understand that the law as well as the EPA was neutral on what oxygenate to use under the Act and that it left the decision to the industry. If I could ask you both to comment on both of those points. No. 1, the provision and the rule, itself, are you aware of that? And second, whether or not I am correct in understanding that basically it left the decision on the type oxygenate to the industry.

Mr. SLAUGHTER. If I may, Mr. Allen, on the second point, which I think we can dispose of right away. The legislative history of the Clean Air Amendments of 1990 and this particular provision are replete with references to the fact that MTBE would be the major oxygenative choice used to satisfy this requirement. Typically, Congress does not pick one particular substance and mandate it; it uses more generic language. But the fact is the EPA and the legislators who were working on the bill at the time fully knew and intended that MTBE would be the major choice, and as it turned out, MTBE was used for 87 percent of the oxygenates under the RFG program. And on the second point, EPA had certified and approved MTBE for use in gasoline as an additive in the mid-1980's, and

EPA reaffirmed that position several times, even in the regulation you are talking about. In 1991 and 1994 when they basically put forth the models for compliance with the Clean Air Act Amendments and RFG program, they stated that MTBE would be the oxygenate most widely used, and as a matter of fact, they based the standards, themselves, on use of MTBE with corrections that would have to be used if another oxygenate were being relied on. So there is complete knowledge here, at the very least, that an officially approved oxygenate would be the major source of oxygen in this program, and it is hard to get any closer to outright mandating than that particular series of events.

Mr. ALLEN. Mr. Cavaney?

Mr. CAVANEY. EPA approval doesn't necessarily endorse a particular oxygenate, but the approval and the registration means that it was shown that MTBE didn't effect emission-control compounds or substantially change gasoline, so it is a de facto approval that MTBE is acceptable for use.

Mr. ALLEN. Do you disagree with the Exxon-Mobile case in the 9th Circuit that—which the Court ruled that the Clean Air Act does not mandate a recipe or a so-called government gas? Do you know that case?

Mr. SLAUGHTER. Yes, we would disagree with that finding. As I pointed out in my testimony, I mean I actually lobbied the issue in 1990 for an oil company. We posed the mandatory provision for oxygenate; we wanted performance standards for the gasoline. The industry advertised, and we usually don't do that. We advertised against this provision because we were concerned about this type of prescription as opposed to performance standards, which would have made a lot more sense.

And just one thing that was mentioned earlier: I mean it was talked about the MTBE was used earlier than the RFG program. It was used because lead was banned in gasoline in the late 1970's, and in order to supply enough octane to the fuel, you had to come up with something else to supply octane. MTBE was used, but in relatively small percentage, maybe 1 percent, Mr. Allen. And when you go to the RFG program, 11 percent of the volume of RFG was MTBE because of this 2 percent requirement. So you are seeing it is a significant jump in the amount of that material that is going to be placed in commerce in the United States. The industry recommended strongly to Congress that they not mandate that.

Mr. CAVANEY. And the point we have said all along is we and EPA and much of the public literature recognized this problem back in the late 1980's before this was done, and they went forward with it anyhow, so that is the part that concerns us, is that there is not a conspiracy here. People are trying to rewrite history a little bit here to make the case for why all of these suits ought to be permitted.

Mr. ALLEN. Thank you both. Thank you.

Mr. SULLIVAN [presiding]. I guess I will recognize myself. I don't really have any questions. I just—I am glad people are here. I think an energy policy is extremely important for this country, and I hope we get it done. When I was running for Congress people talked about that; I am from Oklahoma, and it is very important, not only from a national security perspective, but also from jobs and economic development. I think an energy policy passed in this country today would create thousands of jobs across America, which is very important.

And I want to see the MTBE thing get straightened out. I think it is—you know, the government did mandate that that occur and that people use that, and I think we ought to be sensible as we go forward in getting that straightened out.

But I am glad you are here. I look forward to working with you. I am new to the committee. I did not know I would be chairman this quickly, but I like it. And that is all I have got. Thank you.

Mr. GREEN. Mr. Chairman?

Mr. SULLIVAN. Yes, sir. Gentleman from Texas, Mr. Green?

Mr. GREEN. Thank you, Mr. Chairman. Following up on Mr. Allen's questions, but before I do that, I think when Congressman Allen leaves, you and I could probably draft a pretty good energy bill, Mr. Chairman, that we could get out of this subcommittee and get onto the floor. I just have a few amendments to our last energy bill that I think would expand our opportunity for production. But following up on the MTBE concerns—and I want to focus on MTBE, because you know—I represent a district that made that because people said that is that what it is going to do, and it has cleaned up our air in Houston and a number of other communities. And we all want a full a tank of gas, and we don't want it—and we don't want to taste it or smell it, but in all honesty, there has to be some way we can deal with it.

Mr. Slaughter, on some of the air benefits from MTBE: MTBE is cleaner burning and reduces smog more than regular gasoline—we learned that—but it is more water-soluble than regular gasoline. Is that right?

Mr. SLAUGHTER. That is correct.

Mr. GREEN. And if we lose our ability to use MTBE, we will have even smoggier air than we are—we would otherwise, especially in smog-problem places like California and the East Coast and in Houston. Is that correct?

Mr. SLAUGHTER. MTBE was proven, Mr. Green, to be a very effect gasoline blend-stock, and it basically contributed significantly to the reduction of smog-causing agents and also air toxins and really was a major contributor to the success of the reformulated gasoline program in many states.

Mr. GREEN. And again, I noticed it has improved ours because, Mr. Chairman, even this morning in the Washington Post, Houston was not on the top 10 of the asthma problems in the country, and so considering the problems we have on a regular basis, I consider that a win.

Not only do only do we have the ozone and the asthma, visibility problems, the smog, but toxic air compounds as well. And can you expand on your testimony that states that the California Air Resources Board had a study that shows volatile organic compounds will increase in California's air without MTBE?

Mr. SLAUGHTER. There are concerns about what is called the permeation effect, that ethanol, the only other available oxygenate, has when MTBE is replaced with ethanol. As you know, Mr. Green, we still have a 2-percent oxygenation requirement for RFG, which means that where MTBE is banned, you have a de facto ethanol mandate.

Ethanol is a product that our members, many of our members, sell. We are very high on ethanol. It is a good gasoline blendstock, and there will be significant need for it. However, it does have some environmental properties that make it difficult to use in certain areas, and some of those problems, we think, are appearing in California, and that is basically why we think that the Congress's policy should be evenhanded vis-á-vis MTBE and ethanol.

Mr. GREEN. Okay. And I guess that problem—we have talked about this on our subcommittee and the full committee: we have an underground storage tank program, LUST, that was paid into for years. And if we could address the problems in California or the New England States or even in East Texas—because I know Chairman Ralph Hall had a concern about it a couple of years ago because of a pipeline break—and they would actually that funding to cleanup the problems, I think we could deal with it. Again, I appreciate your testimony.

Mr. Santa, from—sometimes the energy—they—as described as the past and present versus the future, and it seems strange for—where I come from in Texas we get criticized for just trying to drill our way out of a problem, and I don't know if that is fair because I think we also—I also support major investments in our future of our energy economy, whether it is hydrocarbons or 50 years from now, something else. But I think a lot of critics of today's energy economy have misconceptions about what tomorrow's may be as well.

Many environmentalists look forward to a hydrogen economy, and could you tell us what fuels we are going to be able to use to power these hydrogen fuel cells?

Mr. SANTA. Well, Mr. Green, I am not an expert on hydrogen; however, I do know that currently one way to get hydrogen is to refine or process natural gas. As we know, we currently have got some challenges on the natural gas price and supply situation, and obviously, relying upon gas to create hydrogen would put even more pressure on the gas resource base and the price situation, so I think it does really point to the notion that if the Nation is going to make a transition to hydrogen, there needs to be some significant research and development into other ways that it can be commercially produced.

Mr. GREEN. Other than using natural gas, which we would have to now. And so even you opposed drilling in Anwar or MTBE or other oil industry issues, you still see the need for natural gas and other infrastructure in order to have the hydrogen economy in the future, without—you know, even if we do the research, we may be able to find something.

If we have a hydrogen economy and do not allow natural gas production, for example, in the Eastern Gulf or the Outer Continental Shelf, we will certainly need LNG, and I know that is—Mr. Chairman, that is one of the amendments I had liked that wasn't in that last energy bill—to make sure—although it is heresy for a Texan to say we need to import natural gas. But I think we need to provide a streamlining effect, and Congressman Tierney and I have legislation on that—in additional to the Alaskan gas. Is that correct?

Mr. SANTA. Yes, sir. I mean, I think the position that INGA has taken, and I think other natural gas industry trade associations, is that this is not a situation of its LNG or Alaskan gas or LNG or Rockies production, that, in fact, we need to take advantages of all places where we can get the resource, both domestic and imported.

Mr. GREEN. We need all of the above?

Mr. SANTA. That is correct.

Mr. GREEN. LNG, Alaska, and more exploration, for example in the Eastern Gulf and everywhere else. Thank you, Mr. Chairman, unless someone else on the panel has any responses to the questions. I know you all sit there for a long time, and as you can tell, Members of Congress can't do that.

Mr. DINNEEN. Congressman, I just have a brief comment on your dialog with Mr. Slaughter, my good friend, about the air quality impacts of taking MTBE out of gasoline. One of the benefits of the bill that Chairman Barton has put together is that it includes a very strong anti-backsliding provisions that we believe will assure that the emissions benefits of RFG are preserved.

Mr. GREEN. And I appreciate that because that is one of our concerns. In fact, when I was first was on the committee and—Congressman Waxman and I talked about, that we would have no backsliding or——

Mr. SLAUGHTER. Mr. Green, if I could just mention, there, on the subject of MTBE. Material has been put in the record that attempts to characterize the South Lake Tahoe situation, and I have a couple of documents for the record that address several of the legal issues that are raised in those papers. I would just like to balance that from our perspective and get that material into the record if we could.

Mr. GREEN. If you submit it, Mr. Chairman, I would——

Mr. SULLIVAN. I will accept.

Mr. GREEN. [continuing] love to insert that information in our record. Thank you.

Mr. SULLIVAN. Without objection—gentleman is excused. I would like to recognize myself for 5 minutes to ask some questions. Mr. Cavaney, I would like to ask you do any of the provision in the discussion draft absolve any of your members companies of the obligation to do environmental cleanup of MTBE or to restore areas impacted by releases of MTBE into the environment?

Mr. CAVANEY. They do not. They all remain in force, and if we do negligence, trespass, or any other violation of current law, we can be held for wrongdoing, and then ultimately damages. The issue is just defective product under product-liability law, which says it is sort of like a free pass because what, in essence, it says in a finding in court is if it is a defective product, the plaintiff doesn't have to prove wrongdoing. They can automatically go to punitive damages and start to settle at that point, so everything else remains in force. If we have something wrong, you know, we are liable, and we will pay, and in many cases, you know, we are cleaning up before anything even gets to a court.

Mr. SULLIVAN. Okay. I have got a couple others if you don't mind. Is there any change in the obligation or liability to clean up any groundwater effected by gasoline, regardless of whether it contained oxygenates, under the Resource Conservation and Recover Act; the Federal Clean Water Act, and States' Clean Water Acts?

Mr. **Cavaney**. No, there is not. It remains in force.

Mr. **Sullivan**. Thank you. I would like to recognize Mr. Waxman from California for 5 minutes.

Mr. **Waxman**. Thank you very much, Mr. Chairman. I want to apologize to this panel that I have had conflicts in my schedule, so I haven't been here to hear your testimony, but I will certainly have a chance to review it.

Mr. Cavaney, I am little perplexed by your testimony today. You stated that Congress mandated the use of MTBE. You implied, but didn't state clearly, that if hadn't been for the Clean Air Act Amendments of 1990, oil companies wouldn't have used MTBE in the fuel supply, and I want to make the record clear on this point. MTBE was used prior to the 1990 Amendments, wasn't it?

Mr. **Cavaney**. Yes, Mr. Waxman, it was used in relatively small amounts to replace the lead in order to put enough octane in gasoline so it could go forward. The Clean Air Act Amendments significantly increased it, and that was the thing that the industry was concerned about. We opposed the idea of mandating it because of the concerns that were well known, publicly, that you run the risk of having a groundwater-contamination remediation problem.

Mr. **Waxman**. I don't believe that that was known by anybody outside of the oil industry. There was nothing in the Congressional hearing record, nor did those of us who were involved in the 1990 Amendments have that information given to us. What we asked was that a certain standard be met from fuels. MTBE was only 1 of the ways that that standard could be met.

Mr. **Cavaney**. It was the practical way. The other choice was, at that time, a fledgling industry, which was ethanol, was the other way to approach it; there was no way that you could meet the deadline and get the volumes together in order to do that, and that is why there is a number of the sponsors on the Senate who made mention of the fact that they would be using MTBE here.

And I might go to the other point: EPA's Blue Ribbon Panel on Oxygenates, in their final report, actually identified this problem, and that was well distributed and known in the public record.

Mr. **Waxman**. I beg to differ with you on that. But I want to submit for the record, Mr. Chairman, correspondence that Mr. Cavaney and I have had on this questions. And Mr. Chairman, I ask unanimous consent to put the correspondence in the record.

Mr. **Hall**. Is it in? I don't know if Mr. Waxman is going to want to put it in if it is already in.

Mr. **Waxman**. Well, if it is in, then there is no need to put it in. If it is not in, I would ask—request that it could be put it.

Mr. **Hall**. Without objection.

In your letter to me dated June 21, 2000, Mr. Cavaney, you provide data that shows the oil industry was ramping up its use of MTBE prior to the 1990 amendments. From 1986 to 1990, the oil industry was increasing its use of MTBE on average by more than 2.6 million barrels per year. Each year, more and more MTBE was entering the fuel supply, yet Congress had not enacted the Clean

Air Act or even considered the reformulated gasoline requirement that eventually became law.

By the time the Clean Air Act was enacted, the oil industry was using 84,000 to 100,000 barrels of MTBE every day in the United States. That means that each year, between 30 and 37 million barrels of MTBE were being sold into commerce. And now the oil industry is saying Congress made us do it. I don't believe that is the case, and I don't think that argument holds up.

Nor is it the case that the industry only used tiny amounts of MTBE before 1990 Amendments. According to Mr. Cavaney's letter, prior to passage of the 1990 Amendments, the oil industry was using some 40 percent of the amount of MTBE that would ultimately be used in 1998. And we will have our differences, but that is part of the record of the letter I am going to put into the record of this hearing.

Mr. CAVANEY. Yes. I might say, on the increase in volumes, typically—much is happening right now with the ethanol, where you have seen MTBE banned in a number of states. The industry and companies go out in advance because they have to fine-tune refineries, get sources of supply identified; and you have to start in the beginning. You just can't stop and start overnight, so naturally, there are going to be companies who are going to be making major capital improvements, and they will use that opportunity, then, to adjust to what is obviously going to be the new world.

Mr. WAXMAN. Well, this legislation before us gives a pass to the MTBE industry and defines it as a—not a defective product. I think that is very controversial and a poor idea. I just want to ask any of the witnesses: according to the Department of Energy's Energy Information Administration, if Congress enacts the H.R. 6 conference report, the need for imported oil and petroleum products will increase by 85 percent over 20 years. Will any of you tell me whether you think it is a good idea to enact a comprehensive energy policy that will allow our needs for foreign oil to so dramatically increase in the coming decades? Anybody want to jump in on that? Mr. Olson?

Mr. OLSON. Yes. Our view is that that is exactly the wrong direct and that we ought to be enacting legislation that would require much more energy efficiency and a switch toward renewables and that this is not a forward-looking approach.

Mr. WAXMAN. Mr. Cavaney, do you want to respond to that question? And then, I am sure my time has expired.

Mr. CAVANEY. Mr. Waxman, when you look at the energy business, it is a very long-lived business in the sense that change occurs slowly over time, as you bring in alternative fuels, as you bring in other sources of supply, wind energy and the like. And then, you have to also look at population growth, because it is very much tied to that, so it would only hold true that over a period of time, it is going to increase to some degree. I think, also, that same study has—one can best look at identified improvements in energy efficiency and like. But clearly, some technologies could come along, things like the Prius and other things, which might change that.

But it should not surprise anyone that, you know, that there is continued increases until alternative sources are able to come in be price competitive and provide the kind of service and reliability that you get from oil and natural gas.

Mr. HALL. I thank you, Mr. Waxman. That is the end of these testimonies. I want to thank you for your patience and for the time you have given us, and we are going to seat the second panel. And for the second panel, don't be dismayed by the lack of bodies up here because you are really testifying for the record, and the staff, the people that do most of the work, are here. And Mr. Shimkus is the Vice Chairman of the Committee, and he is going to start out; I am going to go vote. Thank you very much to all of you. Thank you.

Mr. SHIMKUS [presiding]. We are about ready to start. As we let the final people get out the door and take their seats, we are in the process of having our—actually, our last vote of today, so we—I imagine we will have members rotate back here for the second panel. I will—the way I will do is I will introduce one of the panelists first. I will do his introduction; do your 5 minute opening statement—your full testimony is in the record—and then, I will do the next introduction. Instead of going though the whole panel, I will do it one at a time, so everybody—we just have to stage for—who we are visiting with. So welcome, and we appreciate your time and effort that it took to get here.

I would like to, first, introduce Mr. John Kane, who is the Senior Vice President for Government Affairs for the Nuclear Energy Institute. Prior to joining NEI, Mr. Kane was Managing Director of the Federal Relations at the American Council of Life Insurance. I don't want Mr. Markey to have any segue into that. Earlier, he was a career naval officer, serving on 6 aircraft carries and 4 aviation squadrons, whose last assignment was Director of Navy Liaison, U.S. House of Representatives. I won't hold that against you.

Mr. Kane has a bachelor degree in Naval engineering from the United States Naval Academy. I will hold that against you, being a West Pointer—as well as a master's degree in systems management, international relations, and national securities strategic studies.

So Mr. Kane, welcome. You have 5 minutes. The floor is yours.

Mr. KANE. Thank you, Mr. Chairman.

Mr. SHIMKUS. Naval Academy: that is what I would expect. Well, the inference you are making handled that concept, but——

Mr. KANE. We need nuclear-powered microphones here.

STATEMENTS OF JOHN E. KANE, SENIOR VICE PRESIDENT, GOVERNMENT AFFAIRS, NUCLEAR ENERGY INSTITUTE; NAVIN NAYAK, ENVIRONMENTAL ADVOCATE, U.S. PUBLIC INTEREST RESEARCH GROUP; JAMES H. HANCOCK, JR., CHAIR, LEGISLATIVE AFFAIRS COMMITTEE, NATIONAL HYDROPOWER ASSOCIATION; ANDREW FAHLUND, VICE PRESIDENT FOR RESTORATION AND PROTECTION OF AMERICAN RIVERS; JOHN E. SHELK, SENIOR VICE PRESIDENT, GOVERNMENT AFFAIRS, NATIONAL MINING ASSOCIATION; ALAN NOGEE, DIRECTOR, CLEAN ENERGY PROGRAM, UNION OF CONCERNED SCIENTISTS; AND RHONE RESCH, PRESIDENT, SOLAR ENERGY INDUSTRIES ASSOCIATION

Mr. KANE. Thank you very much for the chance to be with you today. I am John Kane from the Nuclear Energy Institute. The NEI represents over 270 members, which includes every U.S. utility that owns and operates a nuclear power plant, and we also represent every company that is involved in helping forge the next generation of safe, clean nuclear plants.

What our members do is essential for America's prosperity and security. Today, our Nation's 103 reactors produce electricity to power 1 of every 5 U.S. homes and business. We do it cleanly, reliably, and economically. We are less expensive than coal, natural gas, or oil.

America needs 25 percent more electricity today than it did a decade ago. We don't have any more nuclear power plants now than we did then, but nuclear still produces the same 20 percent of America's electricity supply, and that is because we dramatically improved our capacity and output.

Many factors have contributed to this nuclear energy renaissance, but the 1992 Energy Policy Act set the stage, and this committee crafted it. You had the wisdom to include a new Federal-licensing process for new nuclear power plants, and it is a good one. Companies are testing that today, and it will pave the way for new reactors in the United States. And we need those reactors because we will need in America 50 percent more electricity by the year 2025. We will also need emission-free electricity to balance our environmental concerns. Nuclear energy currently provides 70 percent of that emission-free electricity generation in the United States today.

How do we meet the need the future? It is time for Congress to provide an updated National Energy policy. We have to chart a path forward for diverse energy next, that both reduces our dependence on foreign sources and protects the environment. H.R. 6 in the 108th Congress did that. We supported it then; we support a similar approach this year.

What specific steps in the new legislation can help support a renaissance in nuclear power? First—there are 3. The first include provision for nuclear and other energy sources to meet the challenges of adding base-load power plants, new transmission capability, and infrastructure investment. Second, support investment options that help share the cost and business risk of building new, next-generation nuclear power plants. And finally, appropriate funding and oversight keeps the Yucca Mountain program on track.

57 sections in H.R. 6 related to nuclear energy. The only section we believe that should be removed is section 661, which deals with security. Those requirements have been met, and that section should be removed. We particularly applaud the previous conference report for supporting new nuclear plants.

There are several combinations of tools and techniques that will stimulate construction in the United States, and we believe that companies can best achieve these results by pursuing a combination of options. These would include investment tax credits, production tax credits, and accelerated depreciation. Specifically, we ask this committee to look at a loan-guarantee mechanism for a limited number of advance plants along with a mix of these tax incentives. The exact combination will vary from company to company and project to project. The companies placing orders from new plants need a variety of options to move forward, and we don't see this Federal investment and partnering continuing forever.

The first few plants of any series of new capital-intensive baseload power plants will need support. Then, once the capital costs are steadied out, we believe that after that is done that it will be seen that these are economically competitive and viable, and companies and investors will finance the follow-on plants without any assistance.

Finally, nuclear energy's contribution to our future depends on effective management of the used fuel problem. There are several steps the committee can take to help us on this issue. And that is to expedite the EPA's determination of the radiation-protection standard for Yucca Mountain so that delays in the program are limited. And second, reclassify the Nuclear Waste Fund receipts from electricity consumers to ensure that receipts are used for their intended purpose, the disposal of spent fuel.

Mr. Barton, the chairman of the committee today, indicated in his statement this morning that he intended to introduce legislation and work through this committee to solve that problem, and we strongly support and applaud that. Mr. Chairman, we are seeing widespread support for nuclear energy. Eighty percent of Americans that we see in polls support it, and we know why: because it is clean, safe, reliable, and cost effective. It is the only emission-free source that we can readily expand to meet our Nation's growing energy needs.

Our industry can play an even greater role in meeting this Nation's need while protecting our environment, but to do so, we need your help. We need to pass a comprehensive energy bill that enables us to continue providing Americans with clean, reliable, affordable electricity, stimulate investments in new nuclear plants, and keep the Yucca Mountain program on track. Thank you very much.

[The prepared statement of John E. Kane follows:]

PREPARED STATEMENT OF JOHN E. KANE, SENIOR VICE PRESIDENT, NUCLEAR ENERGY INSTITUTE

Mr. Chairman and members of the committee, I appreciate your tireless efforts to craft comprehensive energy legislation and the opportunity to provide the nuclear energy industry's perspective on this important work.

In his State of the Union speech on February 2, 2005, President Bush was emphatic that the passage of comprehensive energy bill by the Congress is long overdue. He stated that it is imperative that we enact legislation that will ensure we have the energy we need to support our expanding economy now and in the future, "including safe, clean nuclear energy."

Our economy and high standard of living depend on low-cost, reliable and safe electricity generation. We encourage Congress to take the final steps now to enact comprehensive energy legislation that benefits all Americans.

Nuclear power is a critical part of our nation's electricity supply. America's 103 reactors cleanly and reliably produce electricity to power one of every five U.S. homes and businesses.

The nuclear energy industry fully supported the H.R. 6 conference report of the 108th Congress that you and your members shaped over the past two years. We understand that this is the starting point for your deliberations in this new Congress, and we applaud your leadership in getting a bill through the House expeditiously.

There are three key steps that this committee can take to ensure nuclear power remains a critical part of a diverse electricity portfolio that provides future generations with clean, reliable and affordable electricity.

The three steps are:

- pass comprehensive energy legislation that contains the necessary provisions for nuclear energy and other vital electricity sources to meet the challenges of adding baseload power plants, new transmission capability and other infrastructure
- support investment options to share the cost of the business risk of building the first few next-generation nuclear power plants
- consider several issues for action in this or subsequent legislation important to the long-term viability of nuclear energy, including the nation's used fuel repository at Yucca Mountain.

The industry backed H.R. 6, because it helped provide the framework for nuclear energy's future in the United States. We strongly support similar legislation in this Congress.

COMPREHENSIVE ENERGY BILL WOULD HELP ENSURE NUCLEAR ENERGY'S ROLE

In the legislative arena, the nuclear industry's first priority is the passage of comprehensive energy legislation that includes the following nuclear energy-related provisions:

- financial incentives to promote investment in new nuclear facilities
- long-term reauthorization of the Price-Anderson Act
- funding authorization for key research and development programs
- provisions that support a stable regulatory environment essential to nuclear safety and security
- uranium market sales provisions
- creation of an assistant secretary of energy for nuclear energy at the Department of Energy
- funding authorization for educational and training programs.

GOVERNMENT-INDUSTRY PARTNERSHIPS SUPPORT NEW-PLANT INITIATIVES

America's electricity demand is expected to increase by 50 percent over the next 20 years, according projections from the Energy Information Administration. Nuclear power is the only emission-free energy source that can be readily expanded to meet this demand.

The Detroit News recognized the need for new nuclear plants this week in an editorial titled "Put Nuclear Option Back on the Table." In the Feb. 14 editorial, the News said, "as natural gas prices continue to escalate and the nation remains handcuffed by the countries that control the lion's share of the world's oil, it's time to seriously consider nuclear power again."

The industry has taken enormous strides during the past few years to explore alternatives for new nuclear plants. Investment in new nuclear generation is a key priority for the industry. We believe that it is wise energy policy to support public-private partnerships in jumpstarting the construction of new nuclear plants.

The H.R. 6 conference report included several important tax provisions supporting investment in new nuclear facilities; the industry would welcome the same provisions in the bill you are currently crafting. However, we realize that the jurisdiction for these measures lies with the tax-writing committees.

We would urge that you examine the inclusion of such measures as an investment tax credit, accelerated depreciation, production tax credits (similar to those detailed in Section 45), or a combination of these investments tailored to the needs of those interested in building new plants. We ask you to consider how these measures may augment a company's strategy to build new nuclear plants, in view of varying competitive structures within energy companies' states, geographic areas or service territories.

There is, however, one investment area within the committee's jurisdiction: the loan guarantee. We recommend that you consider fashioning a limited loan guarantee structure to aid companies interested in pursuing new nuclear plants. As with other investment incentives, a loan guarantee would be available for a very limited number of new, advanced plants.1We understand that there are concerns among some House members relating to the possibility of default with respect to loan guarantees. However, the industry believes that the record of performance of today's nuclear power plants (including records for production and efficiency in three of the past four years) underscores the fact that nuclear energy is competitive today and will remain so in the future. The industry intends to build new plants that will be highly efficient and profitable.

We believe that companies can achieve the best results by pursuing a combination of options, including loan guarantees, investment tax credits, production tax credits and accelerated depreciation. The specific combination of financing tools and techniques will vary from company to company, and from project to project. But companies need a variety of options to move forward toward placing new plant orders.

Dr. Ivan Maldonado, an associate professor of mechanical, industrial and nuclear engineering at the University of Cincinnati, wrote Jan. 30 in The Cincinnati Enquirer that "Congress should include the tax incentive in a comprehensive energy bill that's awaiting final action." Maldonado wrote that a tax credit (similar to credits for renewables) "would block our backsliding into even greater oil dependency, provide needed electricity capacity, and help slow and eventually reverse the build-up of greenhouse gases."

The financing challenges for the industry apply to the first few plants in any series of new capital-intensive baseload power plants. As first-of-a-kind capital costs decline, and as investors gain confidence that the licensing process works as intended, companies can finance subsequent plants without federal investment.

Equally important have been changes made to the licensing process in general, which remove bureaucratic, counterproductive hurdles and replace them with common-sense objective criteria. Energy companies are demonstrating and testing the new licensing processes to ensure that they can be completed in a disciplined manner with full public participation and to ensure no unnecessary delays in the licensing process.

PRICE-ANDERSON ACT RENEWAL

A necessary part of the framework that would enable companies to pursue new plant projects is the renewal of the Price-Anderson Act. H.R. 6 called for an indefinite extension of the Price-Anderson Act; this comprehensive bill should include the same provision.

The portion of the Price-Anderson Act that covers commercial nuclear reactors expired on Dec. 31, 2003. Coverage for Department of Energy contractors has been temporarily extended through Dec. 31, 2006. However, the law provided a "grandfathering" provision that continues the coverage for the current plants until reauthorization. However, no new plants will be covered until Congress reauthorizes the act.

The industry provides more than $10 billion of no-fault insurance protection in the unlikely event of a nuclear reactor incident. The nation's electric utilities—not the public or the federal government—pay for this insurance.

The federal government has never paid a penny under Price-Anderson for commercial reactor licensees. To the contrary, the federal government has received $21 million in indemnity fees from utilities. In addition, the act has served as a model for legislation in other areas, ranging from vaccine compensation and medical malpractice to chemical waste cleanup.

More than $200 million has been paid in claims and costs of litigation since the Price-Anderson Act went into effect, all of it by the insurance pools. Of this amount, approximately $71 million has been paid in claims and costs of litigation related to the 1979 accident at Three Mile Island.

This protection consists of two levels. The primary level provides liability insurance coverage of $300 million. If this amount is not sufficient to cover claims arising from an accident, the second level—secondary financial protection—applies. For the second level, each nuclear plant must pay a retrospective premium, equal to its proportionate share of the excess loss, up to a maximum of $100.6 million per reactor per accident. This includes a $95.8 million premium and a 5 percent surcharge that may be applied, if needed, to legal costs.

NUCLEAR ENERGY RESEARCH AND DEVELOPMENT

The nuclear energy industry was especially pleased with the far-reaching nature of the provisions in H.R. 6 focused on research and development of new nuclear power systems. The industry expects to begin building new nuclear plants and further improving the performance of nuclear power plants throughout the next two decades.

New technologies that will emerge during that time frame will improve efficiency and safety. Based on projections for the growth of electricity demand, we will require greater electricity production in all sectors, and nuclear energy must play an integral role in our future national energy portfolio.

Previous legislation authorized funding for the following nuclear energy research programs, including:

- the Nuclear Energy Research Initiative, which is focused on future reactors
- the Nuclear Energy Plant Optimization program, aimed at increasing efficiency of existing reactors
- Nuclear Power 2010, DOE's initiative to begin work on new reactors by the end of the decade
- the Generation IV Nuclear Energy Systems initiative, which supports work on advanced reactor designs
- Nuclear Hydrogen Initiative, for research into reactor designs for large-scale hydrogen production
- Nuclear Infrastructure Support, which focuses on maintaining, upgrading and modifying existing nuclear facilities, as well as building new facilities.

The conference report established funding for an advanced nuclear fuel recycling program, aimed at developing proliferation-resistant nuclear fuel recycling and transmutation technologies. It also proposed research focusing on materials science for advanced fission reactors and the DOE fusion program. The industry believes all of these programs are important to our nation's energy future and supports their inclusion in comprehensive energy legislation.

STABLE REGULATORY ENVIRONMENT ESSENTIAL TO NUCLEAR SAFETY AND SECURITY

As the industry plans an increasingly important role in meeting our electricity generation needs, it is essential that we streamline regulatory processes so they are responsive and safe as possible. A stable regulatory environment also builds confidence within the financial community—a necessary condition for companies seeking financing for new plant projects.

With almost 3,000 reactor-years of experience, nuclear energy's safety performance over the past 10 years is virtually unparalleled in American industry. If we look at reactor performance and lost-time accident rates, nuclear plants are among the safest places to work in the entire industrial sector. We want to extend this safety record under a stable, predictable regulatory process.

We thank this committee for its role in helping bring safety-focused regulations to NRC reactor oversight. By applying these same principles, we can achieve a fair and predictable licensing process for new plants and the repository at Yucca Mountain.

Regulation for today's reactors has experienced a sea change over the past five years. First thought to be too complicated, safety-focused, performance-based regulatory concepts are now commonplace in the Nuclear Regulatory Commission revised reactor oversight process.

Today, three-quarters of U.S. reactors are in the NRC green category, the top level of regulatory performance. Meanwhile, there are relatively few "white" inspection findings and performance indicators—the next level of increased regulatory attention—across all plants.

That's an excellent level of safety performance, and one we need to maintain if we want the same safety-focused regulatory concepts applied to new reactors. Stability and objective measures of performance in regulation have been instrumental in achieving this record.

The H.R. 6 conference report contained a number of provisions related to safety and security in the regulatory regimes. The industry found these provisions generally workable. However, we believe Section 661 should be eliminated from the new bill, since that action has been completed to the satisfaction of the Nuclear Regulatory Commission.

URANIUM FUEL MARKET PROVISIONS

As the need for more nuclear energy arises, the industry must prepare to meet that demand, including ensuring that there is a stable supply of reactor fuel at a fair price. There are several important sections in H.R. 6 that would make the market more stable and competitive. In addition, there is a provision to create more competition in the enrichment market. This is good public policy and should remain in a comprehensive energy bill.

NEW ASSISTANT SECRETARY OF ENERGY FOR NUCLEAR

The industry also supports the provision that would create an assistant secretary of energy for nuclear issues. The performance record and output of the current fleet has shown that nuclear energy must remain a part of America's the future electricity generation. Elevating this position at the Department of Energy from the director to assistant secretary level is an overdue recognition of the position of nuclear power in our nation's energy future.

PERSONNEL AND TRAINING

The industry supports provisions included in previously proposed legislation that fund educational efforts for the energy industry in the personnel and training section. These initiatives also endorsed partnerships with educational institutions that serve traditionally underrepresented groups in energy-related scientific and technical careers, such as historically black colleges and universities, Hispanic-serving institutions and tribal colleges. The industry strongly supports such efforts.

INDUSTRY CALLS FOR SUSTAINED PROGRESS AT YUCCA MOUNTAIN

The industry has concerns regarding Yucca Mountain, an issue not addressed in the H.R. 6 conference report. However, there are important policy issues related to Yucca Mountain that must be resolved by Congress in the first session of the 109th Congress, and one issue that merits consideration during formulation of a comprehensive energy bill.

The federal government has made significant progress on the Yucca Mountain project over the past several years. However, the government must ensure that this important project stays on track so that it is completed in a timely and cost-effective manner.

This committee can support this important national initiative by considering the following actions:

- expedite the determination of the radiation protection standard for Yucca Mountain to limit program delays
- reclassify the Nuclear Waste Fund to ensure that consumers' money specifically paid into a trust fund for the construction of the Yucca Mountain Project is available to DOE when needed.

A 2004 federal court ruling determined that the Environmental Protection Agency must re-evaluate its 10,000-year radiation standard for Yucca Mountain. As a result, some have expressed concerns that resolving the radiation standard may delay the Yucca Mountain project longer than necessary. The industry believes that Congress must exercise close oversight of steps to resolve the radiation protection standard and take those actions that may be necessary to assure the process is not unduly delayed.

The industry believes that the Committee should direct the EPA to establish the standard in an expeditious manner or institutionalize the standard as a matter of policy that applies to all hazardous material, including radioactive material.

As the Yucca Mountain repository moves toward full-scale development, the funding requirements for the project will increase significantly. Congress must reform the funding process for Yucca Mountain so that DOE can move forward to complete this project.

Congress established the federal Nuclear Waste Fund in 1982. It is funded by electricity customers to pay for the disposal of used nuclear fuel from commercial power plants. The fund should be used for this purpose, and income into the fund should be available when needed by DOE, subject to congressional oversight.

Electricity consumers have paid more than $24 billion in fees to the Nuclear Waste Fund, which is growing by about $1 billion per year. The fund, if used as intended, will pay for disposal of used nuclear fuel from the nation's commercial reactors. The current budgetary process takes consumer money from the Nuclear Waste Fund and uses it in other, unrelated areas. Congress should reform this process to ensure that this money is used for its expressed purpose: the Yucca Mountain program.

CONCLUSION: NUCLEAR ENERGY IS VITAL TO AMERICA'S ENERGY FUTURE

Nuclear energy supplies clean, reliable, affordable and safe electricity and is the only emission-free source that can be readily expanded to meet our nation's growing energy needs. For these reasons, there is widespread support for nuclear power remaining an essential part of our diverse energy mix. The industry believes passage of comprehensive energy legislation that addresses the future of nuclear energy, including support for new plants and Yucca Mountain, is critical to this effort.

Electricity produced by America's nuclear power plants over the past 50 years has played a key role in the growth and prosperity of our country. Nuclear energy is America's second-largest electricity source, and increased production from today's reactors alone has met one-quarter of the nation's electricity demand growth over the last decade.

Now, nuclear power is poised to play an even greater role in America's energy future. Energy companies are partnering with the federal government to explore possibilities for construction of next-generation nuclear plants, just as the government joined industry to make the first commercial plants a reality 50 years ago.

During the past decade, electricity production at America's nuclear power plants has increased dramatically even though no new plants have been built. Between 1994 and 2004, nuclear plant production increased by the equivalent of 18 additional 1,000-megawatt plants operating at 90 percent capacity—primarily from increased efficiency. In the past four years, the NRC has approved 2,300 megawatts in power uprates, with another 1,100 megawatts in uprates under review. In addition to building new nuclear plants, energy companies will continue to seek ways to safely increase the capacity of today's reactors.

Nuclear power has a relatively small environmental impact compared to other energy sources. One of the most important environmental advantages is that nuclear power plants produce no harmful air emissions in the process of producing electricity. Nuclear power plants produce electricity that otherwise would be supplied by oil-, gas- or coal-fired generating capacity, and thus prevent the emissions associated with that fossil-fueled capacity. As a result, U.S. nuclear plants prevented the discharge of an estimated 700 million metric tons of carbon dioxide into the atmosphere in 2004. This amount equals the carbon dioxide released from nearly all U.S. passenger cars combined.

Nuclear energy also is essential for a strong and vibrant economy. Compared to other fuel sources, uranium fuel for nuclear plants is abundant—readily available from stable sources—and affordable. Nuclear energy's significant role in the energy sector relieves pricing pressure on natural gas and other fuel sources used to generate electricity, and could take the pressure off the high costs of natural gas.

More must be done to ensure that nuclear power can help meet our nation's growing energy demand and balance our energy portfolio over the next half century, while protecting our air quality.

The industry strongly urges Congress to pass comprehensive energy legislation that recognizes the benefits that nuclear energy provides today and helps pave the way for an expanded role in America's energy future.

Thank you for the opportunity to testify before this Committee.

Mr. SIMKUS. Thank you. Now, I would like to turn to Mr. Navin Nayak, Environmental Advocate with U.S. PIR, has authored numerous fact sheets and report for U.S. PIR. Before joining their staff in 2003, Navin worked with the World Wildlife Fund in Canada and received his master's degree in environmental studies from New York University in 2000 and his bachelor's of science from McGill University in 1997. Your full testimony is submitted for the record. You have 5 minutes, and welcome.

STATEMENT OF NAVIN NAYAK

Mr. NAYAK. Thank you very much. Again, as you mentioned, I am with the U.S. Public Interest Research Group; we are the national advocacy office for the State PIRGs. The State PIRGs are State-based advocacy groups that work on environmental, good government and consumer issues. We appreciate the opportunity to speak today, and we hope and expect that our view and the view of other citizen groups will be considered as Congress moves forward and this committee moves forward with energy legislation.

Before I get to the nuclear provisions, I would like to just speak briefly about the kind of energy bill that we would like to see. I think we agree, as I am sure all Members of Congress do, with the President's desire for a reliable supply of affordable, environmentally responsible energy. The primary goals of any energy policy should be to make our Nation more secure and less dependent on foreign energy to reduce the energy costs to all consumers and to minimize the harmful public health impacts and environmental impacts of energy production and consumption. I believe that we are all united on those goals.

Unfortunately, the energy bill that the President supports, that the Congress tried to pass last year, which was twice-rejected by the Senate, which is very similar to the one currently introduced as a discussion draft, would fail on all accounts. According to the Department of Energy's own analysis by the Energy Information Administration, under the energy bill, the U.S. would increase its imports of foreign oil by 85 percent. Far from making us more secure and independent, the energy bill would make us less secure and more dependent on foreign sources of energy than we are today.

Furthermore, the EIA concluded the energy bill would have no change in production, consumption, or prices. When the Department of Energy's own analysis concludes that the energy bill will not help consumers or reduce our Nation's dependence on foreign oil, it is time for Congress to reverse course and move toward an energy policy that makes us genuinely safe and more secure.

The 3 things I would highlight, very quickly, in terms of an energy policy: we would like to see, as I mentioned, energy policy should reduce our dependence on foreign oil. The National Commission on Energy Policy, which included representatives from Exelon, from labor and from an environmental group, recommended that we reduce our dependence by 3 to 5 million barrels per day by 2025. That would reduce our dependence by 15 percent.

Another component should be substantially increasing our investment in renewable energy. The oil, gas, coal, and nuclear industries have received $500 billion in Federal subsidies over the last 50 years, whereas renewables have received about 25 billion. Eighteen States have passed renewable energy standards which would substantially increase their investment in renewable energy. We have released a report today, which coincides with many other reports, showing that investing in renewable energy would create jobs, save consumers money, reduce our dependence on natural gas, and provide substantial environmental benefits.

And the last component, very quickly, is to address the concern around global warming. Today, as the Kyoto Protocol takes effect, 137 other countries are moving forward, and we have not.

I will spend the remainder of my testimony talking about our concerns on the nuclear provisions. Nuclear power is not safe. It is not economical. It is not reliable, and it is not necessary. All aspects of the nuclear fuel cycle pose a risk to humans and the environment, and nuclear power generates long-lived radioactive wastes for which there is no safe solution.

With 103 reactors, the U.S. produces nearly twice as much nuclear waste as any other country, creating the largest nuclear waste disposal problem in the world. And no country in the world has yet found a permanent solution to this problem. We have not built a plant, as Mr. Kane referenced, in nearly 30 years, and the energy bill would very well be the most consorted effort to a nuclear relapse.

The 2 things I would highlight: since the mid-1970's, the U.S. has kept a very strong policy of separating commercial reactors from the creation of plutonium. And for the last 2 decades, we have had a policy against reprocessing waste from commercial reactors. The advanced fuel cycle recycling program, which is funded substantially in the energy bill, specifically reverses this decade-long U.S. policy against reprocessing commercial waste. For security, economic, and environmental reasons, we urge Congress to end funding for that program.

And then, my second point I will raise is around the economics. Nuclear power would, quite simply, would not exist in this country if were not for the enormous subsidies paid for by rate payers and taxpayers. From over $70 billion in research and development subsidies to a special taxpayer-backed insurance policy, known as Price Anderson, to unjustified electricity rates, nuclear power has received a substantial portion of Federal subsidies. The energy bill extends existing subsidies and creates new ones, including, and I will just highlight a few, as much as $6 billion tax credit, and this would be in addition to the high cost that the energy bill already had. The estimation last year was that the energy bill would cost $26 billion in tax credits. That did not include that $6 billion tax credit that would have taken effect if the energy had passed and the nuclear power plants were built. In addition to that, a $1 billion subsidy to build a reactor in Idaho, as well as an extension for another 20 years of the Price Anderson Act, which substantially reduces the costs of industry in the fact that they do not have to go on the private market to obtain insurance.

In conclusion, I would just like to say that we do need to address the serious energy problem facing this country. From reducing costs to reducing our dependence on foreign oil to reducing the public health and environmental impacts. We cannot continue to the same things we have done for 50 years and expect different results, nor can we ignore this problem and pass an unstable energy future onto our children. Congress needs to address our energy problems and move us to a genuinely safe and secure energy future. And again, I appreciate the opportunity to speak to you today.

[The prepared statement of Navin Nayak follows:]

PREPARED STATEMENT OF NAVIN NAYAK, ENVIRONMENTAL ADVOCATE, U.S. PUBLIC INTEREST RESEARCH GROUP

Good morning, my name is Navin Nayak and I'm an Environmental Advocate with the U.S. Public Interest Research Group, or U.S. PIRG. U.S. PIRG is the national office for the State PIRGs, which are environmental, good government and consumer advocacy groups active around the country. The State PIRGs have more than 300,000 members across the country. I appreciate the opportunity to speak before the Committee and to present our views on the energy bill before Congress. We hope and expect that our views, and the views of other citizen groups, will be reflected in the final bill.

The state PIRGs have a long history of working for a clean affordable and safe energy future.

Our goal is to reduce America's dependence on fossil fuels and nuclear power by increasing our production of clean renewable energy and the efficiency of our energy system.

We agree, as I'm sure all Members of Congress do, with the President's desire for a "reliable supply of affordable, environmentally responsible energy." The primary goals of energy policy should be to make our nation more secure and less dependent on foreign energy, to reduce the energy costs on all consumers—residences, commercial, industrial—and to minimize the harmful public health and environmental impacts of energy production and consumption. I believe that we are all united in wanting to achieve these goals.

Unfortunately, the energy bill that the President supports, and Congress tried to pass last year (H.R.6), which is similar to the 2005 Energy Policy Act recently introduced in the House, would fail on all counts. *According to the Department of Energy's analytical agency—the Energy Information Administration (EIA)—under the energy bill the U.S. would increase its imports of foreign oil by 85 percent.*[1] Far from making us more secure or more independent, the energy bill would make us less secure and more dependent on foreign sources of energy than we are today. Furthermore, the EIA concluded that under the energy bill "changes to production, consumption and prices [would be] negligible." In addition to increasing America's dependence on foreign oil, the energy bill would provide no relief to consumers and businesses. From an economic and consumer perspective, the Department of Energy's analysis concludes that the energy bill would be completely ineffectual.

When the Department of Energy's own analysis concludes that the energy bill will not help consumers or reduce our dependence on oil, it is time for Congress to reverse course and move towards an energy policy that will make us genuinely safe and secure.

AN ENERGY POLICY THAT WORKS

Fortunately, there is no shortage of solutions and policies that can meet the goals of a good energy policy. I would like to highlight just 3 provisions that should be integral to an energy policy that moves America forward—all of which are lacking in the current energy bill.

1) Reduced Dependence on Oil

According to the EIA, the United States consumed 19.61 million barrels of petroleum per day in 2002. This is projected to grow to 28.3 million barrels per day by 2025 if we do not take action. Moreover, the U.S. only possesses 3 percent of all known oil reserves in the world, and the EIA predicts that after peaking in 2008, domestic crude oil production will decrease to 5.93 million barrels per day in 2010. Congress must deal with the country's oil deficit by reducing America's dependence on oil; we cannot ignore this problem and pass an unstable energy future on to our children. Simply calling for increased drilling on public and private lands would do nothing more than delay the inevitable need to reduce our dependence on oil.

The National Commission on Energy Policy, which included representatives from industry, labor and an environmental group, recommended that we set a national goal of reducing our dependence on oil by 3-5 million barrels per day by 2025. This would cut America's oil dependence by nearly 15 percent of projected levels in 2025. The National Academy of Sciences concluded that it is economically feasible to double the efficiency of our vehicles in the next 10 years using existing technology; this would allow cars to get 40 mpg and would reduce America's dependence on oil by 4 million barrels per day by 2020. The energy bill before Congress would move us in the opposite direction, increasing U.S. imports of oil by 85 percent. If Congress is sincere about making this country more secure and safe, it must include a provision that will set a strong enforceable standard for reducing America's dependence on oil.

2) Renewable Energy Standard

According to the Energy Information Administration, the U.S. has the technical potential to generate four times our total current electricity use from renewable energy. Currently, only 2 percent of our electricity comes from sources such as wind, solar, geothermal and biomass, and more than 90 percent of the country's electricity comes from polluting and dangerous sources of energy such as nuclear, coal, oil and gas. Investing in renewable energy would avoid the negative public health and envivironmental impacts associated with burning fossil fuels and generating nuclear power.

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[1] http://www.eia.doe.gov/oiaf/servicerpt/pceb/pdf/sroiaf(2004)02.pdf

Several reports, including an analysis by EIA, have concluded that producing 20 percent of the nation's electricity by 2020 is an affordable and achievable goal. Moreover, numerous economic analyses—including one released by U.S. PIRG today entitled *Redirecting America's Energy: The Economic and Consumer Benefits of Clean Energy Policies*—demonstrate that investing in renewable energy would create hundreds of thousands of new jobs, reduce demand for natural gas saving consumers billions of dollars, and alleviate the public health and environmental impacts of burning fossil fuels. In fact, we found that passing a renewable energy standard and investing in renewable energy and energy efficiency would create twice as many jobs and save consumers more than twice as much in natural gas and electricity than the energy bill.

The best way to increase electricity generation from clean renewable energy is to pass a renewable energy standard (often called a renewable portfolio standard) requiring that a fixed percentage of our electricity come from renewable energy by a certain date. In the absence of federal action, several states across the country have moved forward by passing renewable energy standards. In November, the voters in Colorado supported an initiative to increase Colorado's production of renewable energy to 10 percent by 2015. Seventeen other states have already passed renewable energy standards including Texas, Hawaii, New Mexico, New York. If America is going to reduce its dependence on fossil fuels and nuclear power, and move towards a safe and clean energy future, the energy bill should, at the very least, include a national renewable energy standard of 10 percent by 2020, similar to the one that has passed the Senate.

3. *Global Warming*

Today, February 16, 2005, will be remembered as the day the rest of the world moved forward to protect their citizens from the threat of global warming. One hundred and thirty seven countries signed the Kyoto Protocol, which comes into effect today. The United States, however, has ignored the international scientific and political consensus that global warming is a serious current and future problem that requires immediate action.

Human activities over the last century—particularly the burning of fossil fuels—have changed the composition of the atmosphere in ways that threaten to dramatically alter the global climate in the years to come. Global warming is caused by the greenhouse effect, a natural phenomenon in which gases in the Earth's atmosphere, including water vapor and carbon dioxide, trap heat from the sun near the planet's surface. Without a natural greenhouse effect, temperatures on Earth would be too cold for life to survive.

Over the last century, however, the chemical makeup of the Earth's atmosphere has been changing, largely as a result of humans burning fossil fuels, which releases large amounts of carbon dioxide and other greenhouse gases into the atmosphere. Since the industrial revolution, atmospheric concentrations of CO2 have increased by 31 percent.[1] Concentrations of other greenhouse gases have increased as well.

These atmospheric changes have intensified the greenhouse effect, allowing less of the sun's heat to escape the Earth's atmosphere. Global average temperatures increased during the 20th century by more than 0.6° C (1° F), with the rate of change for the period since 1976 roughly three times that for the past 100 years as a whole.[2] According to the United Nations' World Meteorological Organization, 2004 was the fourth hottest year ever recorded, and the 1990s were the warmest decade since measurements began in 1861.[3] If current trends continue, temperatures could rise by an additional 1.4° C to 5.8° C from 1990 to 2100.[4]

The consequences of the increase in global temperatures will vary from place to place because the Earth's climate is extraordinarily complex. According to the United Nations' Intergovernmental Panel on Climate Change, the most authoritative source on global warming, among the changes that could occur include sea level rise of up to three feet by 2100; heat waves; drought; increasingly intense tropical storms; loss of plant and animal species; decreased crop yields; decreased water availability; and the spread of infectious diseases.[6]

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[1] Intergovernmental Panel on Climate Change (IPCC), *Third Assessment Report—Climate Change 2001: Summary for Policy Makers*, 2001.

[2] Intergovernmental Panel on Climate Change (IPCC), *Third Assessment Report—Climate Change 2001: Summary for Policy Makers*, 2001; and World Meteorological Organization, United Nations, *WMO Statement on the Status of the Global Climate in 2004: Global Temperature in 2004 Fourth Warmest* (press release), 15 December 2004, downloaded from www.wmo.ch/index-en.html, 7 January 2005.

[3] World Meteorological Organization, United Nations, *WMO Statement on the Status of the Global Climate in 2004: Global Temperature in 2004 Fourth Warmest* (press release), 15 December 2004, downloaded from www.wmo.ch/index-en.html, 7 January 2005.

[4] Intergovernmental Panel on Climate Change (IPCC), *Third Assessment Report—Climate Change 2001: Summary for Policy Makers*, 2001.

The first signs of global warming are already evident in the U.S. and worldwide. For instance, in Montana's Glacier National Park, the largest glaciers are only about one-third the size they were in 1850, and many small mountain glaciers have disappeared completely. The area of the park covered by glaciers declined by 73 percent from 1850 to 1993, and scientists estimate that the park's glaciers will disappear entirely by 2030. Meanwhile, average summer temperatures in the park have increased by about 1.8° F since 1900.[7]

Along the Atlantic coast, nine hurricanes struck the U.S. in 2004, causing extensive damage estimated at more than $43 billion.[8] According to the National Oceanic and Atmospheric Administration, the intensity of hurricanes increases as levels of atmospheric carbon dioxide increase.[9] Across the Atlantic, a landmark study recently found that human influences on the climate system more than doubled the risk of a heat wave like the one that killed 22,000 to 35,000 Europeans in 2003.[10]

Rapid climate changes in the Arctic "provide an early indication of the environmental and societal significance of global warming," according a major 2004 international report commissioned by the U.S. and seven other nations with Arctic territory.[11] The already extensive melting of glaciers and sea ice, thawing of permafrost, and shifts in ocean and atmospheric conditions will have profound effects on native communities, wildlife, and local economies. For instance, the average extent of sea-ice cover in the summer has declined by 15 to 20 percent in the last 30 years. Among other impacts, the reduction in sea ice "will drastically shrink marine habitat for polar bears, ice-inhabiting seals, and some seabirds, pushing some species to extinction."[12] The report concludes that some continued warming is inevitable given the buildup of carbon dioxide but says that the "speed and amount" of warming can be minimized by substantially reducing future emissions.[13]

Instead of applying the country's technological know-how to address the challenges of global warming, Congress has chosen to ignore the threat, calling for more research on a problem that is already clearly defined and relying entirely on voluntary industry initiatives to merely reduce the rate of increase in global warming emissions. Moreover, Congress is pushing an energy policy that would do nothing to cap emissions of global warming pollution and would in fact increase our dependence on the fossil fuels responsible for the problem. We urge Congress to include a mandatory cap on carbon emissions similar to the Gilchrest-Olver proposal introduced in the House.

To make America more secure and move us toward energy independence, Congress must include these three critical provisions in any comprehensive energy legislation. These provisions are certainly not an exhaustive list; for example, we should also increase energy efficiency standards and incentives for appliances, homes and buildings, and create mandatory reliability standards for the electricity grid. Reducing America's dependence on oil, substantially increasing our production of clean renewable energy, and addressing the threat of global warming should be the necessary pillars upon which any energy bill is built.

The energy bill currently before this Committee and which Congress rejected last year would include none of these positive steps forward. In fact, the energy bill includes several harmful provisions that will weaken landmark environmental laws such as the Clean Air Act and the Safe Drinking Water Act, force states, counties and municipalities to shoulder the expensive clean-up costs surrounding MTBE contamination of drinking water, and provide billions of dollars in subsidies for the coal, nuclear, oil and gas industries.

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[6] Intergovernmental Panel on Climate Change, *IPCC Third Assessment Report—Climate Change 2001: Summary for Policy Makers*, 2001.

[7] EPA, *Global Warming—Impacts, Western Mountains* (fact sheet), downloaded from http://yosemite.epa.gov/oar/globalwarming.nsf/content/ImpactsMountainsWesternMountains.html#changingeco, 5 January 2005.

[8] World Meteorological Organization, United Nations, *WMO Statement on the Status of the Global Climate in 2004: Global Temperature in 2004 Fourth Warmest* (press release), 15 December 2004, downloaded from www.wmo.ch/index-en.html, 5 January 2005.

[9] Thomas R. Knutson & Robert E. Tuleya, "Impact of CO2-Induced Warming on Simulated Hurricane Intensity and Precipitation: Sensitivity to the Choice of Climate Model and Convective Parameterization," *Journal of Climate*, 17 (18), 3477-3495, 15 September 2004.

[10] Peter A. Stott, D. A. Stone, & M. R. Allen, "Human Contribution to the European Heatwave of 2003," *Nature*, 432, 2 December 2004; and Christoph Schar and Gerd Jendritzky, "Hot News from Summer 2003," *Nature*, 432, 2 December 2004.

[11] The Arctic Council, *Impacts of a Warming Arctic: Arctic Climate Impact Assessment*, 2004, 8.

[12] The Arctic Council, *Impacts of a Warming Arctic: Arctic Climate Impact Assessment*, 2004, 10.

[13] The Arctic Council, *Impacts of a Warming Arctic: Arctic Climate Impact Assessment*, 2004, 9.

Our organization has expressed our concerns on these issues at length in other places[14]. I will focus the remainder of my testimony on the nuclear provisions in the energy bill.

NUCLEAR POWER

Nuclear power is not safe, not reliable, not economical, and not necessary. All aspects of the nuclear fuel cycle pose a risk to humans and the environment. Nuclear power generates long-lived radioactive wastes for which there is no safe solution. Nuclear power should be phased out as soon as possible and should not be encouraged as a future energy source.

NUCLEAR POWER IS NOT SAFE OR CLEAN

In light of growing public concern about air pollution and global warming, the nuclear power industry has undertaken a slick advertising campaign to market itself as a safe and clean energy source. Nuclear power is in fact one of the most dangerous and polluting energy sources. Nuclear waste is one of the most dangerous substances created by humans; unshielded, nuclear waste delivers a lethal dose of radiation within seconds. This waste remains dangerous for at least a quarter of a million years (based on the decay of Pu-239). According to the Department of Energy, 95% of the radioactive waste (by radioactivity) in this country has been generated by commercial nuclear reactors. With 103 reactors, the U.S. produces nearly twice as much nuclear waste as any other country—creating the largest nuclear waste disposal problem in the world. No country in the world has a permanent solution to this problem.

The current proposal to develop Yucca Mountain as a repository remains marred in serious legal problems. For example a recent federal district court ruled that the Environmental Protection Agency did not adhere to the National Academy of Science's guidelines that the site be safe throughout the full period of risk. We urge Congress to ensure that scientific integrity is maintained for this project and that the National Academy of Science's guideline is not ignored.

In addition to the public health and environmental concerns accompanying the development of Yucca Mountain, the site will not be able to contain the full amount of nuclear waste generated. In fact, by 2011 the nuclear reactors in the U.S. are projected to have produced 63,000 MT of nuclear waste—the projected capacity of Yucca Mountain. With existing plants already licensed to continue operating—and producing waste—beyond 2011, it is unclear how the federal government will dispose of the excess waste. The federal government should cease building any more nuclear power plants which will only generate severe disposal problems for future generations. In light of the extensive array of energy alternatives available, it is completely unacceptable that the federal government would support generating thousands of tons of deadly radioactive waste to power our homes and turn on our computers.

NUCLEAR POWER PLANTS THREATEN NEARBY COMMUNITIES

Nuclear power plants are very complex and contain enormous amounts of potential energy in the fuel at the core of the reactor. The most tragic example of the dangers posed by this technology is the 1986 accident at the Chernobyl reactor in the Ukraine. The explosion and core meltdown at Chernobyl released radiation that generated a plume encompassing the entire Northern Hemisphere[15]. Here in the U.S., in addition to the partial core meltdown at Three Mile Island in 1979, which forced the evacuation of nearly one hundred fifty thousand people, there have been four other nuclear accidents in the U.S. involving at least partial core meltdown.[16]

The potential consequences of a serious accident are staggering. A 1982 study by the Sandia National Laboratories found that a serious accident at a U.S. nuclear reactor could cause hundreds to thousands of deaths in the near term.[17]

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[14] http://www.newenergyfuture.com/newenergy.asp?[illegible]

[15] OECD Nuclear Energy Agency report "Chernobyl: Ten Years On. *Radiological and Health Impact*", November 1996

[16] Public Citizen website http://www.citizen.org/Press/pr-[illegible].htm

[17] Union of Concerned Scientists, Nuclear Plant Safety: Will the Luck Run Out? December 15, [illegible]

We are concerned that utility deregulation and new ownership of reactors may increase risks of accidents because of increased pressure to run the plants closer to the margin. This risk is heightened by the fact that the 103 operating reactors around the country are deteriorating with age more quickly than expected. Even Vice President Cheney acknowledged the aging problem on the television show "Hardball" (March 21, 2001): "[T]oday nuclear power—produces 20 percent of our electricity, but that's going to go down over time—because some of these plants are wearing out." Despite industry's claims that nuclear power is "safe," at least ten existing reactors have experiencing aging-related shutdowns since January 2000.[18] The events at the Davis-Besse reactor in Ohio highlight the seriousness of the problem regarding the safety of nuclear reactors.

In November of 2001, the Nuclear Regulatory Commission (NRC) allowed FirstEnergy, the owner of the Davis-Besse plant in Ohio to ignore warning signs, then delay a shutdown for three months. Inspectors found a six-inch hole in the reactor cover that had only millimeters left until it breached the cover. According to interviews with NRC personnel, the agency backed down from issuing a safety-related shutdown order after FirstEnergy argued vigorously against a shutdown at that time because they didn't want bad publicity nor a drop in their financial ratings. At least one NRC employee felt that the company withheld important information about evidence of serious corrosion.[19] The NRC's decision to let the plant operate and rake in profits a few months longer even with evidence of serious problems jeopardized the health and safety of the surrounding communities. First Energy is currently under a grand jury investigation related to the events at Davis-Besse. Events such as these underscore the severe security risk posed by nuclear power plants.

CONGRESS SHOULD OPPOSE PROGRAMS, WHICH INCREASE THE THREAT OF NUCLEAR PROLIFERATION

Plutonium, an element that can only be produced in nuclear reactors, is the material of choice for nuclear weapons. All reactors produce it, but it must be separated from highly radioactive irradiated fuel before it can be used in weapons. This separation process is known as "reprocessing." For at least two decades, the United States has had a policy against reprocessing waste from *commercial* nuclear reactors and not allowing plutonium to be used as fuel in nuclear reactors to prevent the proliferation of weapons-usable material.

The Advanced Fuel Recycling Program specifically reverses the decades-long U.S. policy against reprocessing commercial nuclear waste. It advocates reprocessing commercial nuclear fuel and using several types of reactors to allegedly reduce the volume and toxicity of the waste.

A January 2003 report, entitled "Report to Congress on Advanced Fuel Cycle Initiative: The Future Path for Advanced Spent Fuel Treatment and Transmutation Research," admits that this costly program will not obviate the need for a geologic repository. Further it contradicts itself with regard to nuclear non-proliferation. First, it claims that the program can "destroy" plutonium thus reducing the risks of this material falling into the wrong hands.[20] On the same page, however, it touts the potential for a commercial nuclear fuel cycle based on the plutonium separated from existing irradiated fuel—a program that would dramatically increase the risk of weapons materials falling into the wrong hands by putting separated plutonium into commercial nuclear reactors. We urge Congress to end funding for the advanced fuel cycle initiative.

NUCLEAR POWER IS NOT ECONOMICAL

Nuclear power would not exist in this country today if it were not for enormous subsidies paid for by ratepayers and taxpayers. Originally touted as being "too cheap to meter," nuclear power has proven to be too expensive to afford. The nuclear industry has received the vast majority of energy research and development funding, a special taxpayer-backed insurance policy known as the Price Anderson Act, unjustified electric rates from state regulators, enormous and unwarranted bailouts in state deregulation plans, and ultimately a taxpayer-funded nuclear waste dump. The industry has not been able to build a new plant in thirty years because private investors believe that nuclear power is a risky and uneconomical investment. Even after fifty years of constant federal support, the nuclear industry is incapable of building new plants on its own, and since private investors have shown disinterest, the industry is now asking taxpayers for new handouts.

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[18] Union of Concerned Scientists, "Aging Nuclear Plants and License Renewal," Issue Brief, May 22, 2001

[19] Nuclear Regulatory Commission Inspector General Interviews on Davis-Besse http://www.ucsusa.org/clean—energy/nuclear—safety/page.cfm?pageID=1123

[20] Report to Congress on Advanced Fuel Cycle Initiative: The Future Path for Advanced Spent Fuel Treatment and Transmutation Research, DOE, January 2003, p. II-6.

DOE commissioned a report by Scully Capital called "Business Case for New Nuclear Power Plants,"[21] which concludes that existing taxpayer backed insurance (known as the Price Anderson Act), federal research and development funds and ultimately federally-funded nuclear waste program are not enough to make these new reactors cost-competitive. Instead it recommends a mind-boggling suite of new subsidies including: a federal energy credit program, low interest loans, power purchase agreements (at up to 50% more than market rates), emissions credits and additional insurance. This report estimates that the federal government would have to spend at least $1.5 to 2.75 billion in subsidies to bring down the capital costs of five new nuclear plants. This estimate does not include any additional subsidies for nuclear waste disposal, siting and permitting the new plants. The energy bill extends existing subsidies and creates new ones for the nuclear industry. I outline below of few of the most unjustified and costly subsidies below:

CONGRESS SHOULD REMOVE THE $6 BILLION TAX GIVEAWAY

One of the primary obstacles to building new nuclear power plants in the U.S. is the large upfront capital cost of plants. With investors uninterested in bearing the financial risk, the federal energy bill uses taxpayer dollars to assist the industry. Specifically, the energy bill provides the nuclear industry with a production tax credit of 1.8 cents per kilowatt-hour. Under the proposal, a 1000 megawatt (MW) nuclear power plant could claim an annual credit of up to $125 million over an eight year period for a total of $1 billion in federal support. The proposal allows for us to six 1000 MW plants to claim the credit, costing taxpayers as much as $6 billion. The Committee should strip this costly giveaway from the energy bill, particularly within the current budget climate.

CONGRESS SHOULD REMOVE THE $1 BILLION GIVEAWAY FOR THE IDAHO REACTOR

In addition to the $6 billion tax credit, Subtitle C-Advanced Reactor Hydrogen Cogeneration Project—provides $1.1 billion to build a nuclear reactor at the Idaho National Engineering and Environmental Laboratory that would attempt to co-general hydrogen. Specifically, the provision provides $500 million for construction and $635 million plus such sums as are necessary to research, develop and design the new plant. The federal government can actually fund two teams for one year to develop a proposal for building the reactor. Furthermore, the provision does not even require that the plant achieve its intended goal of producing electricity from nuclear power and hydrogen. "The overall project, *which may involve demonstration of selected project objectives in a partner nation,* must demonstrate both electricity and hydrogen production." It makes little sense from a policy perspective to tie the promise of hydrogen as a clean energy source to the most dangerous and historically most expensive energy source. We urge Congress to remove this over-priced boondoggle.

CONGRESS SHOULD NOT EXTEND PRICE ANDERSON ACT.

We oppose extension of the Price Anderson Act, which is an unwarranted taxpayer subsidy to the nuclear industry. This law, passed in 1957 and amended several times since, provides taxpayer-funded insurance for the nuclear industry in the event of an accident. In case of an accident at a nuclear power plant, the industry gets a guarantee of limited liability while the public gets no guarantee of full compensation. Instead of having to purchase insurance on the private market—as other countries have required the industry to do—the nuclear industry in the U.S. is provided a cap on their liability. This confers a substantial annual subsidy to the nuclear industry in terms of foregone insurance premiums, as well as reduced payments in the case of a serious accident. The Price-Anderson Act also provides blanket indemnity to Department of Energy contractors, even in cases of intentional misconduct and gross negligence. Price Anderson was passed as a temporary measure that was supposed to be phased out once the industry established sufficient confidence in the safety of its product. However, 50 years later the industry is still requesting that Congress extend Price Anderson. Existing plants are already covered under the law; yet the industry is requesting an extension to cover new plants. If the industry is confident in the safety of nuclear power they should be willing to fully insure their product instead of asking for federal assistance.

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[21] http://www.nuclear.gov/home/bc/businesscase.html

CONGRESS SHOULD OPPOSE NUCLEAR RESEARCH AND DEVELOPMENT FUNDING.

According to the Congressional Research Service, the federal government provided the nuclear industry with more than $70 billion in research and development subsidies or nearly 60 percent of all federal energy research and development funding between 1948-98. We are extremely disappointed that the subcommittee draft legislation includes authorization of nearly $2 billion in commercial nuclear research and development subsidies. The Department of Energy's own studies show that new reactors developed through taxpayer-funded programs such as Generation IV and Nuclear Power 2010 are not cost-competitive.[22] The nuclear power industry is not a new or budding industry; after more than fifty years of research and development support, it is time to get the industry off of the federal dole.

NUCLEAR POWER IS NOT NECESSARY

Nuclear power is not safe, not economic, and not necessary. Congress should do everything it can to protect the health and safety of the public as well as taxpayers. Nuclear power should be phased out as quickly as possible. By setting strong energy efficiency standards for homes, buildings, and appliances, and by increasing investments in energy efficiency, we can reduce our electricity use in the U.S. by 28 percent by 2020, according to conservative estimates. Instead of increasing federal support for building additional nuclear power plants, we should pursue an aggressive and affordable strategy to increase America's production of renewable energy and invest in energy efficiency.

CONCLUSION

America needs an energy policy that will make our nation more secure and less dependent on foreign energy, reduce the energy costs on all consumers—residences, commercial, industrial—and minimize the harmful public health and environmental impacts of energy production and consumption. The energy bill before Congress would fail on all these counts. It is time for Congress to abandon the failed energy policies of the past century and redirect America's energy toward a safe, secure and affordable future.

Mr. SHIMKUS. And thank you. Our next panelist is Mr. James Hancock, who is a partner in Balch and Bingham's energy section and Chair of the Legislative Affairs Committee on the National Hydropower Association. His practice is focused primarily on the licensing and re-licensing of hydroelectric power projects under Part 1 of the Federal Power Act, including license compliance and administration, relicensing, Clean Water Act compliance, water withdrawals and project joint uses, water rights, shoreline management and environmental issues. He has also been involved in most legislative and regulatory initiatives affecting the hydropower industry over the past 10 years. Mr. Hancock also advises clients on Federal election law issues, including registration and administration of political action committees, lobbying registration and campaign finance.

STATEMENT OF JAMES H. HANCOCK, JR.

Mr. HANCOCK. Thank you. And good afternoon, Mr. Chairman. On behalf of the National Hydropower Association, I greatly appreciate the opportunity to discuss the hydropower licensing reform provision of the Energy Policy Act of 2005 and to encourage you to adopt these important provisions this year.

As this committee knows, hydropower is one of the Nation's most valuable resources. It is low cost, domestic, renewable, and emits no air pollution. Hydropower also plays a major role reducing carbon emissions, provides vast recreational opportunities, and improves electric grid reliability. Hydropower provides numerous benefits every day to millions of Americans; yet despite its many benefits, hydro is an underutilized resource that is on the decline.

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[22] http://www.nuclear.gov/nerac/ntdroadmapvolume1.pdf

Why the decline? The primary cause is the convoluted hydropower licensing process, which is a product of the existing statutory structure that grants various Federal agencies license conditioning authority. The D.C. Circuit Court of Appeals recently referred to this "as an unusual statutory configuration." In short, hydropower project owners, their electric customers, and the general public are facing a deterioration of hydro's benefits due to how the licensing process today functions. Simply put, it fails to effectively balance the Nation's growing energy needs with its important environmental goals. Legislation, not administrative reform, is necessary to truly repair the process in a way that balances the Nation's energy needs with the need, and quite frankly, the industry's desire to adequately mitigate for hydropower's environmental impacts. Over half of the Nation's hydropower capacity must receive a new operating license from FERC by 2018. Many of those projects have already or will soon begin the licensing process. Time is running out for these projects to benefit from meaningful reforms. Congress must act this session.

In a May 2000 report to Congress, FERC stated its preferred solution to the licensing problem. I quote "The most effective way to reduce the cost and time of obtaining a hydropower license would be for Congress to make legislative changes necessary to restore the Commission's position as the sole Federal decisional authority for licensing conditions and processes." While NHA agrees with FERC in this respect, we believe there is an alternative solution, and that is the solution found in the proposed legislation. The bill would provide the balance, transparency, and accountability that is missing from today's process, while leaving intact the existing authorities of the Federal resource agencies. Let me say that again. The bill preserves the Federal resource agencies existing authority to issue conditions for hydropower projects. It would also preserve the current role of States, tribes, environmental groups, and other stakeholders who play an important and active role in the licensing process, and the bill preserves the existing environmental threshold required by the Federal Power Act. Therefore, there is no environmental rollback, as some have claimed.

The hydro provisions of the proposed legislation do several things, but I will focus on its primary feature. And that is this: where a Federal resource agency has developed a licensed condition that it determines is necessary to fulfill its resource goals. Under Section 4E or 18 of the Federal Power Act, a licensed applicant to propose an alternative to the agency's condition. If the Agency secretary determines that the alternative condition meets existing statutory requirements for environmental and resource protection and costs less or has less of an impact on power generation than the condition proposed by the agency, the Secretary must accept the alternative condition. If, on the other hand, the Secretary determines that the alternative does not adequately meet Federal Power Act resource standards, the alternative condition is rejected. Let me be clear: the decisionmaking authority lies with the Federal Resource Agency, not with FERC, and not the licensed applicant. In addition, nothing in the bill prevents non-applicant stakeholders from proposing alternatives of their own. In other words, every stakeholder has an opportunity to participate in the alternative condition process. Let me again make clear, because there has been confusion, the bill does not in any way change or diminish the frequent and full participation by the public in the licensing process. The hydro-licensing process will continue to serve as the most public and inclusive process for the licensing or permitting on any source.

I want to again stress the urgency of this matter. Congress has debated the issue for years. The result of that debate is hydro title of the proposed legislation, which has a bipartisan history. By adopting this title, Congress can better preserve the benefits of hydropower, while maintaining existing environmental protections.

I again thank you for inviting me to testify, and I am happy to answer any questions.

[The prepared statement of James H. Hancock, Jr. follows:]

PREPARED STATEMENT OF JAMES H. HANCOCK, JR., FOR THE NATIONAL HYDROPOWER ASSOCIATION

Good morning Mr. Chairman and members of the Committee. My name is Jim Hancock. I am the Legislative Affairs Committee Chairman for the National Hydropower Association. I am also engaged in the private practice of law with Balch & Bingham in Birmingham, Alabama, where I have worked on hydropower issues for 17 years.

NHA is the only national trade association committed exclusively to representing the hydropower industry. Its 140-plus members are a diverse mix of investor-owned utilities, public power companies, independent power producers, equipment suppliers, manufacturers, attorneys, and consultants. NHA represents over 60 percent of FERC-licensed hydropower capacity, and has been based in Washington, DC since 1983. Its mission is to promote the nation's largest renewable resource, and to ensure that it plays as strong a role as possible in the nation's energy strategies.

On behalf of NHA, I greatly appreciate the opportunity to discuss with you the hydropower provisions of the *Energy Policy Act of 2005,* and to encourage you to adopt these provisions this year. In addition, since there has been a great deal of inaccurate reporting and apparent misunderstanding about the hydropower licensing reform provisions, I want to clarify for you what they do, and do not do, in terms of bringing much-needed reforms to the hydro licensing process. NHA strongly supports these provisions for the reasons discussed below. In addition, NHA offers a few minor changes to the bill not related to licensing reform that NHA strongly encourages the Committee to adopt.

As this Committee knows, hydropower is one of the nation's most valuable resources. According to the Energy Information Administration, hydropower accounts for approximately seven percent (7%) of the nation's electricity in terms of actual generation (275,006,940,000 KwH) and about nine percent (9%) in terms of generating capacity. Hydropower accounts for 83% of the United States' renewable energy capacity and approximately 77% percent of actual renewable electricity generation. Hydropower is low-cost, domestic, renewable, and emits no air pollution. Hydropower also plays a major role reducing carbon emissions, provides vast recreational opportunities, and improves electric grid reliability. It can also provide substantial water supply, flood control and navigation benefits. In short, hydropower possesses attributes unmatched by any other source of energy and provides numerous benefits every day to millions of Americans.

In fact, in its December 2004 report entitled, *Ending the Energy Stalemate,* the bipartisan National Commission on Energy Policy commented that hydropower is an "important source of energy for industry and commerce in the United States" and that "hydropower provides significant air quality and climate benefits relative to other forms of power."

Despite its many benefits, the hydropower resource faces significant impediments that jeopardize its ability to play an important role in our nation's energy strategies. Congress must address these issues. Here is what it can do in the 109th Congress to ensure that hydropower plays a strong role in the nation's energy future:

HYDROPOWER LICENSING REFORM

Hydropower is a resource on the decline[1], and the primary cause of this decline is the convoluted hydropower licensing process, which is a product of the existing statutory structure that grants various federal agencies license conditioning authority. The D.C. Circuit Court of Appeals recently referred to this as "an unusual statutory configuration."[2]

In short, hydropower project owners, their electric customers, and the general public are facing a deterioration of hydropower's important benefits due to how the licensing process today functions. Simply put, it fails to effectively balance the nation's growing energy needs with its important environmental goals.

Over half of the nation's hydropower capacity—296 projects in 44 states with a total capacity of over 30,000 MWs—must receive a new operating license from FERC by the year 2018. Many of those projects have already or will soon begin the licensing process. The time is running out for these projects to benefit from meaningful reforms to the licensing process.

Almost all hydropower stakeholders have long agreed that the licensing process is broken. Recent administrative actions have been helpful. In particular, NHA is optimistic that FERC's new integrated licensing process will provide significant procedural improvements. In addition, the Department of the Interior is currently considering a proposed rule that would, among other things, provide an appeals process for mandatory conditions developed by that agency. However, only legislative action will truly repair the process in a way that balances the nation's energy needs with the need, and quite frankly the industry's desire, to adequately address and mitigate for hydropower's environmental impacts.

Since 1986, the Federal Power Act has required that FERC give "equal consideration" to a variety of factors when issuing hydro project licenses and relicenses. Specifically, Section 4(e) of the Act requires that FERC "in addition to the power and development purposes for which the license is issued, shall give equal consideration to the purposes of energy conservation, the protection, mitigation of damages to, and enhancement of, fish and wildlife (including related spawning grounds and habitat), the protection of recreational opportunities, and the preservation of other aspects of environmental quality." In short, FERC is to issue licenses that balance these various interests.

However, the authority granted certain Federal agencies under Section 4(e) and Section 18 of the Federal Power Act makes this balancing act virtually impossible in many circumstances. Section 4(e) requires that where part of a project will include federal lands, FERC must include in the license for that project such conditions as determined by the Secretary of the department that supervises the federal lands to be "necessary for the adequate protection and utilization" of those lands. Similarly, Section 18 requires FERC to include a fishway prescription in a license at the direction of either the Secretary of Commerce or Interior.

Federal courts have interpreted this Section 4(e) and Section 18 authority as being "mandatory," meaning that FERC must accept these conditions or prescriptions and include them in the license without alteration. Thus, while FERC through its rehearing process may create stronger licenses from a resource protection standpoint if stakeholders demonstrate that additional measures are necessary, FERC is prohibited from modifying agency conditions it, or an applicant, deems excessive, overly-costly or unsupported by the record in the license proceeding.

Unfortunately, these resource agencies do not have an obligation to consider the impacts of their conditions on other aspects of the project such as power generation, recreation, reliability, clean air, etc. Since FERC is powerless to change these mandatory conditions, it must attempt to create balanced licenses working around the mandatory conditions dictated by the agencies.

The net result is that no one is looking at these mandatory conditions to see what impact, if any, they have on the project's other benefits. No one looks at the big picture of how hydropower fits into our national energy and environmental policy. No one is able to take a full and broad look at all of the issues that arise in a licensing proceeding and produce a license that brings benefits to all stakeholders. This lack of perspective has weakened the hydropower resource and its consumers. Balance must be restored.

In a May 2001 report to Congress, FERC stated its preferred solution to the licensing problem. I quote:

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[1] Energy Information Administration has forecasted decreased hydroelectric capacity as "regulatory actions limit capacity at existing projects."

[2] Wisconsin Power & Light Company v. Federal Energy Regulatory Commission, 363 F.3d 453 (D.C. Cir. 2004).

> "The most effective way to reduce the cost and time of obtaining a hydropower license would be for Congress to make legislative changes necessary to restore the Commission's position as the sole federal decisional authority for licensing conditions and processes."[3]

While NHA agrees with FERC in this respect, we believe there is an alternative, more moderate solution—and that is the solution found in the *Energy Policy Act of 2005*. The bill would provide the balance, transparency and accountability that is missing from today's process while leaving intact the existing authorities of the federal resource agencies.

Let me say that again—the bill preserves the federal resource agencies' existing authority to issue conditions for hydropower projects. It would also preserve the current role of states, Tribes, environmental groups and other stakeholders who play an important and active role in the licensing process. And, the bill preserves the existing environmental threshold required by the Federal Power Act. Therefore, there is no "environmental roll-back" as some have claimed.

The hydropower licensing reform provisions of the *Energy Policy Act of 2005* do several things, but I will focus on its primary feature. And that is this: where a federal resource agency has developed a license condition that it determines is necessary to fulfill its resource goals under Section 4(e) or Section 18 of the Federal Power Act, the bill allows a license applicant to propose an alternative to the agency's condition.

If the agency Secretary determines that the alternative condition meets existing statutory requirements for environmental and resource protection, and costs less, or has less of an impact on power generation than the condition proposed by the agency, the Secretary accepts the alternative condition.

If, on the other hand, the Secretary determines that the alternative does not adequately meet Federal Power Act resource standards, the alternative condition is rejected. Let me be clear, the decision-making authority lies with the federal resource agency—not FERC and not the license applicant. In addition, nothing in the bill prohibits non-applicant stakeholders from proposing alternatives of their own. The bill expressly states so.

Let me again be clear on the public participation issue, because there has been some confusion: the bill does not in any way change or diminish the frequent and full participation by the public in the licensing process. The hydro licensing process will continue to serve as the most public and inclusive process for the licensing or permitting of any energy source.

The bill would also do several other things that will add balance, transparency and accountability to the hydro licensing process. These other provisions include the opportunity for an expedited agency trial-type hearing of disputed issues of material fact and a non-binding dispute resolution process in certain limited circumstances. It would also require that the agency document that it at least considered the effects of its mandatory condition on energy supply, distribution, cost, and use, flood control, navigation, water supply, and air quality.

In terms of timing, while the bill may add a few months to the licensing process, it will actually save years at the back end of the process by eliminating significant contention, delay and litigation. By reducing the number of court appeals of license conditions, this bill could help facilitate earlier implementation of environmental mitigation and enhancement measures. What's more, the primary goal of hydropower licensing reform is to improve the process, not shorten it. Licensing reform is about creating a process that produces better results, and that is what the *Energy Policy Act of 2005* accomplishes.

The hydropower licensing reform debate has for years been a search for balance: can the nation balance the benefits of hydropower with environmental protection and mitigation? A growing number of members of Congress say "yes." Congress has debated hydro licensing reform for years. The result: responsible, bipartisan legislation in both the House and Senate for the past three congressional sessions.

I want to again stress the urgency of this matter. Without action, today's hydropower licensing process will continue to erode the many benefits provided by the nation's 2,000 non-federal hydropower projects at the expense of consumers and the environment. With Congressional action, the nation's hydropower resource and its many power, environmental and societal benefits will be better preserved for future generations. I urge Congress to adopt the hydropower licensing reform provisions of the *Energy Policy Act of 2005*.

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[3] "Report on Hydroelectric Licensing Policies, Procedures, and Regulations: Comprehensive Review and Recommendations Pursuant to Section 603 of the Energy Act of 2000"; Federal Energy Regulatory Commission Staff, May, 2001.

INCENTIVES FOR NEW HYDROPOWER DEVELOPMENT

While only three percent of the nation's 75,000 dams produce electricity, hydropower is presently the largest renewable electricity source. According to data from the Energy Information Administration and the Department of Energy, however, hydropower is on the decline and underutilized. At best, hydropower's contribution to national energy supply will remain flat. Congress can, and should, reverse this trend.

The Department of Energy estimates that as much as 21,000 megawatts of hydropower capacity sits unused at existing hydropower facilities and non-hydropower dams. This hydropower capacity could be developed *without* building new dams or impoundments. This is enough power for eight cities the size of Seattle or enough power for the state of Virginia. It is enough yearly power for 6.9 million homes.[4] It would also result in the avoidance of 42 million metric tons of carbon emissions each year.

Of the 21,000 MW identified by DOE, 4,300 MW of new hydropower could be achieved by simply further developing our nation's existing hydropower infrastructure through efficiency improvements and capacity additions. This is enough power to meet the electricity needs of the states of New Hampshire and Vermont. Put another way, it is enough yearly power for 1.4 million homes.

Unfortunately, almost none of the nation's potential hydropower capacity is being developed. Bringing new hydro generation on-line is capital intensive, and the costs are increasing. In addition, hydropower faces costly regulatory hurdles of new development not faced by other resources. While the costs clearly vary from project to project, new hydro generation—depending on the type of upgrade—runs from $650 to $2,500 per kilowatt (Kw), sometimes more. Hydropower has similar disadvantages in today's energy markets as other renewables and deserves similar policies designed to encourage the development of renewable sources of power.

In its Report, the National Commission on Energy Policy recommended that Congress expand the renewable energy production tax credit to include "new hydropower generation." During the 107th and 108th Congresses, members in both the Senate and the House, on both sides of the aisle, introduced 15 bills that recognized the hurdles to new hydropower development by providing incentives, including H.R. 6. The *Energy Policy Act of 2005* also provides incentives for hydropower development—incentives which have been urged for years by Congressmen Shadegg and Wynn.

Incentives work. Look at the recent growth of the wind energy industry, as well as some of the other renewable energy industries. And, look at the last time there was any significant growth in the hydropower industry. That was in the 1980s, when Congress last provided incentives for hydropower development. Those incentives resulted in approximately 2,000 MWs of clean energy being placed on the electricity grid. It's time to provide incentives again.

Considering the bipartisan support for upgrading existing hydropower facilities and maximizing the power output of the nation's existing hydropower and dam infrastructure, as well as the nation's growing need for clean, domestic, reliable energy, it is time for Congress to ensure that hydropower's potential capacity is fully developed. The only way to do that is to adopt incentives for hydropower development. Without incentives, this valuable potential will continue to sit unused at a time when it is most needed. NHA strongly urges Congress to include a role for hydropower in its renewable energy tax incentive package.

R&D APPROPRIATIONS FOR DOE'S HYDROPOWER PROGRAM

The *Energy Policy Act of 2005* states that, "the Secretary of Energy shall conduct a balanced set of programs of energy research, development, demonstration, and commercial application to support Federal energy policy and programs by the Department. Such programs shall be focused on: (1) increasing the efficiency of all energy intensive sectors through conservation and improved technologies; (2) promoting diversity of energy supply; (3) decreasing the Nation's dependence on foreign energy supplies; (4) improving United States energy security; and (5) decreasing the environmental impact of energy-related activities."

The DOE hydropower program, which mostly focuses on the Advanced Hydropower Turbine (AHT), accomplishes all of these goals. Unfortunately, the Administration does not see it this way, as it slashed the DOE hydropower budget by 90 percent for FY 2006 and it is calling to abolish the program at the end of 2006.

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[4] Using a 40% capacity factor.

While NHA understands the Administration's desire to reduce federal spending, the decision to greatly slash, then end, the DOE hydropower program should be reconsidered. This program's progress over the past decade in developing advanced turbine technologies is about to yield significant results that will lead to more clean and inexpensive hydropower while reducing impacts on fish. Once commercialized, these technologies will pay for themselves countless times over while reducing conflict and legal disputes.

The DOE hydropower program, which received $4.8 million from Congress for FY 2005 after the Administration recommended $5 million, is a joint program between DOE and the hydropower industry. It began approximately a decade ago with matching funds from industry. Its general mission is to improve hydropower's environmental performance and increase its contribution to national energy supply.

Among other things, the DOE hydropower program also focuses on improving hydropower's environmental performance, as well as assessing the potential of non-conventional, emerging hydropower technologies, such as kinetic hydropower, that hold tremendous promise. While the DOE hydropower budget has historically accounted for less than two percent of the budget for renewable energy and efficiency programs, it has produced results.

With regard to the program's primary focus, the AHT is a turbine primarily designed to improve fish passage. In addition to improving fish passage, the new turbine will increase hydropower project efficiency and result in power output increases. In the fall of 2004, after receiving approval from FERC, Grant County PUD in the state of Washington installed an AHT at its Wanapum Dam on the Columbia River. Testing of the turbine will start this spring during juvenile salmon runs—testing that will require analysis, and possible further testing, through 2007.

Grant's success could pave the way for other projects with fish migration issues, including federal projects. The Advanced Hydropower Turbine could practically eliminate the downstream impact of dams from a fish passage standpoint—this is potentially a significant turning point for the hydropower industry, both federal and non-federal. Since the federal government is the largest user of hydropower resources, it stands to gain significantly from the successes of the DOE program.

In its report, the National Energy Commission recognized the need for the development of new hydropower technologies to address environmental issues (i.e., the AHT) and expand power output. The Commission also encouraged the development of non-conventional hydro technologies, such as micro-hydropower and tidal power. These are areas on which the DOE program works.

Shutting down the DOE program sends the signal that the Department of Energy should not examine issues related to hydropower, a resource on which the federal government heavily depends for its own power production. It also sends a signal that the government is not concerned about improving hydropower and addressing its issues.

There is far too much important work to be accomplished to abandon the DOE program now. Closing the program would mean that the years of hard work and resources spent by the government and the industry would be for naught. Congress must restore the program, increase its commitment to DOE's hydropower program, and ensure full funding for the AHT, as well as other hydropower research areas within the Department.

Specifically, NHA recommends that the Committee amend the *Energy Policy Act of 2005* so that it include the following language on the hydropower program within the R&D Title's section on renewable energy:

"Funding for the Department's hydropower program shall be used for the Advanced Hydropower Turbine (AHT) program and related activities that will improve the technical, societal and environmental benefits of hydropower. Funding shall also support broadening the Department's hydropower program to study other operational and environmental issues related to hydropower production, such as the potential integration of hydropower with other renewable energy technologies, and to encourage the development of incremental hydropower. Funding shall also be made available to assess, research, develop, and test emerging, non-traditional hydropower technologies, such as kinetic hydropower, that will enable the development of new hydropower capacity. The Department shall disperse such money among these program areas as appropriate."

NHA also recommends that the Committee include language in the R&D Title stating that funding for the DOE hydropower program shall be set at $10,000,000 for each year from FY 2006-2010. Given the allocations the Energy Policy Act of 2005 requests for renewables R&D, NHA's funding request for the DOE hydropower program would amount to less than two percent of the overall renewable energy budget—surely something Congress can afford.

FEDERAL POWER PURCHASING REQUIREMENT

The *Energy Policy Act of 2005* requires the Secretary of Energy to establish a program that would require the federal government to purchase a certain amount of electricity from renewable resources beginning in 2007. After 2013, the federal government would be required to purchase on a yearly basis 7.5 percent of its electricity from renewable resources, which are defined in the bill.

While a certain type of hydropower is presently included in the definition of renewable resources under the *Energy Policy Act of 2005,* the definition is too narrow in scope, and also unnecessarily descriptive. NHA encourages Congress to make the following changes to the Federal Power Purchasing requirements of the bill:

Instead of the lengthy description of what hydropower resources are considered renewable, Congress should simply modify the definition so that it states "incremental hydropower." Incremental hydropower is a term that has been used for years in various pieces of legislation. Incremental hydropower is simply new electricity at existing hydropower facilities achieved through efficiency improvements or additions of capacity.

In addition, NHA strongly encourages Congress to broaden the definition of renewable resources that so it allow for the inclusion of "new hydropower capacity at existing non-hydropower dams; kinetic hydropower, micro-hydropower and low-head/low-power hydropower."

By making the changes recommended above, Congress will ensure that it can best meet the goals outlined in the Federal Power Purchasing requirement, as well as better recognize hydropower as a renewable source of energy. It will also encourage hydropower development at existing projects and non-hydro dams—development which would undergo an extensive environmental screening process.

CLOSING

Hydropower has long played an important role in the nation's energy history, but it stands ready to play an even greater role in the future. To do so, Congress must soon address the issues I discussed today. Otherwise, the hydropower resource will continue to decline, and a large amount of clean, reliable, domestic, and secure energy capacity will sit unused at a time when it is most needed.

I again thank you for allowing me the opportunity to discuss the hydropower provisions of the Energy Policy Act of 2005. I am happy to answer any questions of the Committee.

Mr. SHIMKUS. Thank you very much. And now I—the chair would like to recognize Mr. Andrew Fahlund, Vice President for Protection and Restoration at America Rivers in 2004. Since 1997, he has served as Chair of the Hydropower Reform Coalition. He is a member of the Board of Directors for the Low Impact Hydropower Institute, and he served on several government advisory groups and participated in numerous policy forums and negotiations addressing dams in the United States. He previously worked as a water conservation advocate in Colorado, a field archaeologist in the Pacific Northwest, and an instruction in human ecology and field archaeology—I can't even pronounce these words—at Colorado College. Mr. Fahlund received his MS in natural resource policy from the University of Michigan.

Welcome, and your opening statement is in the record. You have 5 minutes.

STATEMENT OF ANDREW FAHLUND

Mr. FAHLUND. Thank you very much, Mr. Chairman. Good afternoon, and thank you for inviting me to testify before you today. I am with American Rivers, and we are a longstanding participant in the arena of hydropower dam regulation. I am also Chair of the Hydropower Reform Coalition, which is a consortium of 130 conservation, recreation, and homeowner groups from around the nation, whose common goal is ecological and recreational enhancements at hydropower damns.

American Rivers and the members of the Hydropower Reform Coalition opposed the hydropower title of the discussion draft and urge other committee members to oppose it as well. We also urge the committee to support an energy policy that brings about a cleaner, safer, and more secure energy future for our Nation. We are not anti-hydropower. We are pro-rivers, pro-communities, and pro-Democratic process. Dams whose licenses expire today have never been subject to modern environmental laws. Hydropower relicensing is a once-in-a-lifetime opportunity to bring a 19th century technology and practice up to 21st century standards.

Since legislation was first introduced in 1997 in the Senate, some in the hydropower industry have foretold of terrible consequences without the passage of this legislation. None of their scary, hyperbolic predictions has come true. According to FERC, relicensing has resulted in a per-project loss of only 1.6 percent of generation. There is really no evidence of rate hikes. No one in the industry has been able to point to a significant residential/consumer rate hike as a direct result of relicensing. But to take an example of a recent analysis of Idaho Power, which is heavily reliant on a single hydropower project, Hells Canyon, even assuming that the most extensive fish-passage conditions are required, the study showed that this would result in an estimated rate increase of only $1 per customer per month. Idaho Power would still have among the cheapest power in the Nation.

And there have been far fewer delays since 1997. Chairman Patrick Wood instituted hearings on projects that are most delayed at FERC, and the trend has gone down steadily. Since 2001, there have been 135 license issues, with a capacity of more than 4,500 megawatts of power. And we have been involved—we being the Coalition and American Rivers—in about three-fourths of those. Projects totaling 70 percent of the licensed electric capacity were actually the result of settlements, that 70 percent resulting—of the capacity resulting from settlement agreements.

Just this past year, American Rivers stood alongside members of industry to celebrate agreements on 4 significant rivers in Oregon, Tennessee, New York, and Maine. These settlements involved a variety of environmental protections and rural community development opportunities. They also resulted in the continued operation of more than 1,900 megawatts of power. At best, this is a title—this title is a case of fixing what isn't broken, and at worst, it is a case of breaking what is already fixed. This title takes us backwards, and in fact, had it been past back in 1997, many successful settlements that we have celebrated through the Nation would not have happened.

We have 3 main problems with the title. It prejudices other parties. The scales of justice hang level in this country for a reason, and that is because equality is a bedrock value of the Nation. In a legal environment, we grant equal right to everyone. This proposal grants industry a new right of administrative appeal and a new right to offer alternative condition that the agency must accept, but fails to grant equivalent rights to anyone else. Under every other part of the hydropower licensing process, if someone wants to intervene, they enjoy the same rights as the dam owner, including the right to appeal. There is nothing to distinguish this part of the licensing process from other parts that justify such a drastically unequal process. Under this provision, utilities are given a seat at the grown-up table, while Governors, tribal nations, and interested citizens are supposed to be content sitting at the kiddy table.

Members of Congress should show citizens the same respect and trust they do the energy industry.

The title also adds red tape. Although it advances—it is advanced as a means of improving efficiency and timeliness, the title creates 6 new administrative processes, including a trial-type hearing that the Department of the Interior estimates will take an average of 24 months to complete. It also requires agencies to analyze 11 new factors which FERC already analyzes in its own NEPA document. Furthermore, if this provision is enacted, projects already well on their way to a final license will suddenly be subject to these requirements, causing significant additional delay for those 80 projects already in the pipeline.

Finally, the door swings only one way in this process, toward reducing environmental requirements, but never swings toward stronger ones. State, tribal, and community interests have no right to challenge a decision that is not strict enough, under this provision, suggestion that we can go to FERC for such an opportunity is to simply to ignore the law and ignore reality. The courts have appropriately said that this is—remanded the licensing processes that are main to the agencies. It is also impractical, and in our experience without precedent, that FERC would impose stronger conditions than an agency in this context.

So in conclusion, as we have said before, we have no objection to an admissive appeals process for mandatory conditions. However, any process must be open and equal for everyone, efficient, and simple, and maintain strong environmental standards. Thank you very much.

[The prepared statement of Andrew Fahlund follows:]

PREPARED STATEMENT OF ANDREW FAHLUND, VICE PRESIDENT FOR PROTECTION AND RESTORATION, AMERICAN RIVERS, CHAIR OF HYDROPOWER REFORM COALITION

I. INTRODUCTION

Good afternoon, Mr. Chairman, Congressman Hall, and members of the Subcommittee. I appreciate the opportunity to appear before you here today. My name is Andrew Fahlund and I am the Vice President for Restoration and Protection at American Rivers, the leader of a national river conservation movement, dedicated to protecting and restoring the nation's rivers. American Rivers has more than 45,000 members in every state across the country. As chair of the Hydropower Reform Coalition, I also speak for 130 national and local organizations dedicated to improving rivers through the licensing of hydropower projects by the Federal Energy Regulatory Commission (FERC). Coalition members are active in more than 75 percent of the relicensing cases currently pending before FERC and have constructively contributed to numerous policy discussions concerning FERC regulated hydropower.

To start, I would like to express our grave concerns with the Energy Bill Discussion Draft (Discussion Draft) as a whole, which will harm the environment and do nothing to reduce our nation's dependence on foreign oil. We urge the Committee to reject the current Committee Discussion Draft of the Energy Policy Act and work toward a national energy policy that takes bold steps toward a cleaner, safer, and more independent energy future.

More specifically, I am before you today to share the opinions of American Rivers and the Hydropower Reform Coalition on the hydropower title of the Discussion Draft. There are four basic messages in my testimony:

1. Hydropower relicensing significantly improves environmental quality at almost no cost to power generation.
2. Much has changed since hydropower legislation was introduced in 1997 and even since the House passed H.R. 6 in 2003. Many of those changes have already paid dividends and others still hold promise.
3. By creating an administrative appeals process available only to hydropower dam owners, the Hydroelectric Title tilts the scales of justice in their favor and prejudices states, tribes, local landowners, irrigators, conservation groups, and other interested members of the public who all have interests in how dams are operated.
4. The new process proposed in the Hydroelectric Title of the Energy Policy Act will increase regulatory complexity, decrease certainty, lengthen the timeline and cost of licensing, and diminish environmental standards.

I would like to stress that hydropower relicensing is a natural resources issue and not simply an energy issue, due to the enormous impacts dam operations have on hundreds of species, thousands of river miles, and millions of dollars in recreational opportunities for decades to come. Changes to dam operations that better conserve natural resources have a negligible impact on energy generation, electric rates, and industry viability.

I would also like to make it clear that American Rivers and members of the Hydropower Reform Coalition are NOT anti-hydropower. We simply wish to ensure that dams are operated to protect and restore river resources using best available technologies and best management practices. Coalition members including American Rivers have been involved in the relicensing of more than 300 dams over the past ten years supporting the continued operation of more than 9,000 MW of electricity. By contrast, we have opposed the relicensing of fewer than 20 dams, which together produce less than 100 MW of electricity.

While hydropower has provided significant benefits to society over the past 100 years, this has not come without a cost to our rivers. Dams harm the physical, chemical, and biological function of rivers by disrupting flows, degrading water quality, and blocking passage of fish and other species. Although hydropower's energy source—water—is relatively renewable, the river ecosystems that dams affect are not. The profound impacts of hydropower dams on river systems have been widely documented in the scientific literature. For example, dams cut off free-flowing rivers, blocking not only fish and wildlife migration, but also the flow of nutrients and sediments. By diverting water out of rivers for power generation, hydropower projects often leave entire water channels dry. Simple changes in the operating procedures for these projects can significantly reduce these impacts without significantly reducing generation.

When the scores of hydroelectric licenses scheduled to expire over the next decade were originally licensed decades ago, meeting environmental standards was not required and our understanding of complex ecological systems was in its infancy. For decades, these projects have operated with minimal environmental controls leading to significant and sometimes irreversible damage. Current relicensing represents our first opportunity to review these dams, reservoirs, and turbines, and to place environmental safeguards on them for the next 30 to 50 years that will improve our rivers and protect fish and wildlife for our children and grandchildren.

Though damaging to rivers and ecosystems, hydropower represents an important part of the nation's energy mix, producing about 10% of total annual generation. About half of that energy is generated by non-federal producers and regulated by FERC. The licensees pay nothing for an essentially free and renewable fuel—river water—and less than 2% of the fair market value for the use of federal lands.[1] According to FERC, the relicensing of more than140 hydropower projects reduced generation an average of only 1.6% per project.[2] Based upon the relative percentage of hydropower in the nation's overall energy mix, we estimate that relicensing requirements would result in a mere 0.025% reduction of the electric power generated annually in America.

The claim by utilities that measures to protect river ecosystems and water quality will lead to substantial rate hikes for consumers are false. For example, the Hells Canyon Complex of three dams on the mainstem of the Snake River, bordering between Idaho and Oregon, is one of the largest privately-owned hydropower projects in the country. This complex blocks access of Snake River Chinook salmon from 80% of their historic spawning grounds. An economic analysis commissioned by the Nez Perce Tribe found that measures to provide fish passage and improve water quality in the river would lead to an average rate increase for residential customers of only $1 a month, if the entire cost of these measures were passed along to consumers.[3] In addition, a poll of customers in southern Idaho and western Oregon found widespread support for Idaho Power providing upstream and downstream fish passage and a willingness to pay $1.50 per month for ensuring these conditions.[4]

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[1] U.S. General Accounting Office, *Federal Energy Regulatory Commission: Charges for Hydropower Projects' Use of Federal Lands Need to Be Reassessed,* Washington, D.C., May 2003, GAO-03-383, p. 5.

[2] Federal Energy Regulatory Commission Staff, Report on Hydroelectric Licensing: Policies, Procedures, and Regulations. Comprehensive Review and Recommendations Pursuant to Section 603 of the Energy Act of 2000, Washington, D.C, May 2001.

II. RELICENSING—AN IMPORTANT BALANCING ACT

The relicensing process is necessarily complex. Because rivers are public resources with many competing interests and significant environmental issues, the licensing process for hydropower dams involves multiple stakeholders. Unlike most electricity generating technologies, hydropower affects a wide range of interests. Because every dam and every river is different, generic standards cannot be applied to each project. Individual conditions suited to each project must be established.

The Federal Power Act (FPA), although commonly considered an energy statute, also occupies an important role in environmental protection. The statute was amended in 1986 to require the Commission to give "equal consideration" to power (electricity generation) and non-power (fish and wildlife protection, recreation, etc.) benefits of the river. However, this balancing requirement is not the sole environmental constraint placed on hydro projects. Back in 1920, Congress determined that some basic environmental protections must be afforded at every dam. Under these statutory requirements, expert federal and state resource managers establish basic conditions that form a floor above which FERC then establishes license conditions in the public interest.

Sometimes referred to as mandatory conditions, the statutory requirements assure that:

(1) Fish can be passed upstream and downstream of a dam (FPA Section 18);
(2) If a nonfederal dam is located on federally owned land, the purposes of the federal land are protected (FPA Section 4(e)); and
(3) The dam complies with state-developed water quality standards (Clean Water Act, Section 401).

Section 18 of the Federal Power Act grants authority to the Secretaries of Commerce and the Interior to mandate the construction and operation of fish passage. This authority has been upheld by the courts on a regular basis.[5] Setting the requirement for fishways apart as a special consideration reflects the understanding that fish are important to interstate and intrastate commerce and that they also have substantial non-commercial value. It reflects a policy incorporated into the laws governing dam-building from the earliest years of our nation. The privilege of building a dam on a public waterway has long required the protection of those who rely on affected fisheries, through the construction of safe and effective fish passage. New science, technology, and appreciation for the value of healthy fisheries has more recently prompted the construction of fish passage on many dams that were originally constructed without it.

Section 4(e) grants authority to land management agencies to ensure that projects on their lands meet current management goals and objectives. More than 400 FERC regulated projects are located on Forest Service, Bureau of Land Management, and tribal lands. These projects have impacts on water resources, recreation, fish and wildlife, and cultural resources and also receive the benefit of cheap rent.[6] In order to adequately manage the lands entrusted to them and ensure that hydro projects do not interfere with other uses of the land, federal land management agencies must be able to constrain how these projects are operated.

The protection of water quality is a responsibility that has been delegated to the states since the Clean Water Act was adopted 30 years ago. Section 401 ensures that private hydro projects will not interfere with state standards, by requiring that each federally licensed project obtain a state certification that the project is consistent with state standards, including the designated uses for each water body. The Supreme Court confirmed in *PUD No. 1 of Jefferson County v. Washington Dep't of Ecology,* 511 U.S. 700 (1994), that these standards include chemical, physical, and biological parameters.

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[3] Jon H. Goldstein, GTBEconomics. *Financial Analysis if Idaho Power Company: Effect of Mitigation Costs on Company: Effect of Mitigation Costs on Company's Financial Status and Electric Rates*, Chevy Chase, Maryland, August 12, 2004

[4] Evans/McDonough Company, Inc. Opinion Research and Strategic Services, *Hells Canyon Dam Complex*, Seattle, Washington, 2004.

[5] *Escondido Mutual Water Company et al. v. La Jolla Band of Mission Indians, et al.*, 466 U.S. 765, 777 (9th Cir. 1984) (citations omitted); *Bangor Hydro v. FERC*, 78 F.3d 659 (1st Cir. 1996); *American Rivers v. Federal Energy Regulatory Commission*, 187 F.3d 1007, 1030 (9th Cir. 1999).

[6] U.S. General Accounting Office, *Federal Energy Regulatory Commission: Charges for Hydropower Projects' Use of Federal Lands Need to Be Reassessed*, Washington, D.C., May 2003, GAO-03-383, p. 5.

These laws establish the simple rule that hydroelectric projects must meet basic environmental standards before operating on our rivers. Just as we should not allow coal-fired plants to operate without modern emissions control devices, hydro plants should not operate without use of best available technologies and practices. Nonetheless, these environmental conditions have been scapegoated as the cause of delays in the relicensing process. This is not supported by the facts.

In May 2001, FERC issued a report to Congress reviewing "policies, procedures, and regulations for the licensing of hydroelectric projects to determine how to reduce the cost and time of obtaining a license."[7] The report showed that Section 4(e) and 18 requirements of the FPA by federal resource agencies were not a major cause for relicensing delays and that the timeframe for processing licenses incorporating mandatory conditions was nearly identical to that of licenses without conditions.[8] In fact, of the 157 new or existing projects licensed from 1995 through 2000, the Department of the Interior only established mandatory conditions under Section 4(e) for 9 projects, and the U.S. Fish and Wildlife Service or the National Oceanic and Atmospheric Administration only established Section 18 fishway conditions for 32 projects.[9] When these conditions are established, they are usually uncontested. Of the 57 challenges brought by applicants for the 157 licenses, only 13 were directed to Interior and NOAA conditions.[10]

III. IMPROVEMENTS TO THE RELICENSING PROCESS CAN WORK

For the last eight years, American Rivers and members of the Hydropower Reform Coalition have been working with industry, federal and state agencies, and the Commission to make administrative improvements to the hydropower licensing process. We have made steady progress in a number of areas including federal agency actions and procedures to ensure consistency, timeliness, and coordination.

Alternative Licensing Process

Since 1997 when hydropower legislation similar to that in the discussion draft was introduced by Senator Larry Craig, FERC has undertaken two rulemaking efforts to streamline hydropower licensing. The first effort was the Alternative Licensing Process (ALP) established on October 29, 1997, and designed to promote collaboration and settlement in hydropower licensing. Since that time, dozens of projects have used the Commission's ALP rules, resulting in far less litigation and a marked increase in settlements.

From 2001 through 2004, FERC issued 135 licenses. A total of 51 of those licenses or 38% were settlement agreements. Interestingly, settlements accounted for 71% of the total electrical capacity of licenses issued during that time, or 3,208 MW. During that same period, the Commission oversaw the surrender of only 5 constructed projects, most of which were due to age and disrepair.

The recent Tapoco Settlement in Tennessee and North Carolina among Alcoa Aluminum, conservation groups, communities and state and federal agencies will restore flows to two previously dewatered river reaches, including a nine-mile section of the Cheoah River that has been virtually dry for more than 50 years. This will help a diverse array of native aquatic species, including the endangered Appalachian Elktoe mussel and create flows for recreation including fishing and whitewater boating. The agreement will also preserve over 10,000 acres of pristine watershed and biologically diverse lands adjacent to the Great Smoky Mountains National Park and the Cherokee National Forest through a combination of conservation easements, land donation, and rights of first refusal to conservation interests. To correct some of the stream system fragmentation caused by these dams and reservoirs, Alcoa will design and operate systems to transport four endangered fish species between disconnected tributaries and work with state and federal officials to reintroduce these species throughout the region. The agreement also creates two trust funds of $12 million over 50 years to finance restoration, and recreation projects in the Little Tennessee watershed. According to FERC, "the project will provide 380 megawatts of electricity generated from a renewable resource while protecting and enhancing fish, wildlife, recreation and aquatic resources near the project."[11] Last Congress, a component of this agreement was codified in legislation, P.L. 108-343, sponsored by Congressman Duncan and Senator Alexander. The Hydroelectric Title of the Discussion Draft would have made this agreement highly unlikely.

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[7] Federal Energy Regulatory Commission Staff.

[8] Federal Energy Regulatory Commission Staff., p. 38

[9] William Bettenberg, Deputy Director, Office of Policy Analysis, U.S. Department of Interior, "Statement before the Senate Committee on Energy and Natural Resources on S. 597, S. 388, and S. 71 and Matters Related to the Hydropower Licensing Process," Washington, D.C., July 19, 2001, p. 3.

[10] William Bettenberg.

Another success story is the Pelton-Round Butte Project owned and operated by Portland General Electric and the Confederated Tribes of the Warm Springs on the Deschutes Rivers. The settlement agreement, signed officially on July 13, 2004 will lead to salmon and steelhead reaching the upper parts of the Deschutes River for the first time in decades. In discussing the project Portland General Electric stated that "The river sustains varied economies by generating electricity, irrigating agricultural land, providing a fish harvest for the Tribes and supporting recreation and tourism. The Deschutes draws white water rafters and fishermen from all over the region, while its reservoirs provide water skiing, shoreline camping and other recreation. Those benefits have come at a cost to the river, which the Pelton Round Butte relicensing agreement will help offset." The settlement is an important last step to earning a new FERC license for the Pelton project. FERC must still accept the settlement and issue a new license.

In New England, major settlement agreements in Massachusetts, Vermont, and New Hampshire have led to tremendous growth in rural economies. For example, a series of dams along the Penobscot River in Maine with nonexistent or insufficient fish passage facilities caused the populations of migratory fish species to plummet to historically low populations. The river was home to the largest Atlantic salmon run in the world. Under the Penobscot River Restoration Project and licensing agreement, two dams will be decommissioned and removed, and state-of-the-art fish passage will be provided at a third. These efforts will open more than 500 miles of river habitat—historical spawning grounds for Atlantic salmon and other species—significantly enhancing fishing, recreation and tourism opportunities. As part of the licensing agreement, 90% of the power production capacity will be maintained in the project by increasing production capabilities at other dams.

These and other settlement agreements have led to enormous improvements to rivers, local economies, and have guaranteed the continued operation of cheap, emissions free hydropower. The one-sided provisions of the Discussion Draft would have made this kind of collaboration almost impossible and significantly detracted from the ability to achieve settlements. Instead, we would have been left with litigation, litigation, and more litigation.

FERC's New Rule

Effective October 23, 2003, after the Energy Policy Act passed out of the House of Representatives, FERC established a new licensing process called the Integrated Licensing Process (ILP) designed to establish a single "integrated" environmental analysis. The proposal was the culmination of work by FERC staff and federal agencies as well as a parallel process initiated by hydropower licensees, conservation groups, state agencies, and Indian tribes. The Commission estimates that the ILP will reduce the average time it takes to complete the licensing process by 60%. Further, it estimates that the proposed process will reduce the cost of licensing for a project under 5 megawatts by $150,000 and for a project greater than 5 megawatts by $690,000.[12]

The highlights of the ILP are:

- increased assistance by Commission staff to potential applicants and stakeholders during the development of license applications;
- greater coordination among the Commission and federal and state agencies with mandatory conditioning authority;
- coordination of environmental analyses between the Commission and other stakeholders;
- public participation in the consultation process;
- clear and rational schedules and deadlines for all participants;
- development of a Commission-approved study plan, with dispute resolution of disagreements; and

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[11] Federal Energy Regulatory Commission, "EPA to Oversee Hydroelectric Facility Dismantling As Part of Superfund Remediation Project," Press Release, January 19, 2005

[12] Commissioner Nora Brownell, Federal Energy Regulatory Commission, Testimony before the Subcommittee on Energy and Air Quality, Committee on Energy and Commerce, House of Representatives, Washington, D.C., March 5, 12, and 13, 2003.

- creation of a new Commission Tribal Liaison, to be the point of contact for American Indians' concerns regardless of the proceeding or issue.

Back in 1997, American Rivers and our conservation partners, along with the Departments of Agriculture, Commerce, and the Interior, all argued that it was premature to change the relicensing process until FERC's ALP rule had a chance to work. Eight years later, the success of that process has been borne out. We now stand before Congress immediately following the publication of another FERC rule on hydropower. We again urge Congress not to move forward with drastic proposals until we see how well this new process works. FERC has demonstrated that administrative improvements can occur without amending the law and without jeopardizing public participation or environmental quality.

Mandatory Conditioning Agency Rulemaking

In 2003, the U.S. Forest Service undertook a rulemaking on the "Notice, Comment, and Appeal Procedures for Projects and Activities on National Forest System Lands."[13]. New rules to amend 36 C.F.R. Part 215 eliminated the process for administrative appeal of various Forest Service actions, including Forest Service conditions for the protection and utilization of National Forest System lands in hydropower project licenses under the FPA, section 4(e). American Rivers and the Hydropower Reform Coalition generally opposed the rule change, arguing that administrative appeals were a valuable administrative tool, provided they were adequately staffed and funded. Unfortunately, in an effort to streamline the agency, the Forest Service did away with any administrative review of agency conditions.

The concept behind the one-sided appeals process available exclusively to licensees was publicly vetted in a proposed Department of the Interior rule[14] this past fall. Ninety-nine percent of the 15,000 comments received, including those of eight states and several tribes, opposed the one-sided appeals process. Newspaper editorials in the Washington Post, San Francisco Chronicle, and Atlanta Journal Constitution lambasted the idea of giving utilities an unfair advantage. Comments received by the agency, including those of American Rivers and the Hydropower Reform Coalition, rejected the concept that dam owners were entitled to an appeal process closed to other stakeholders with a direct interest in the project, and called upon the Department of the Interior to establish a process open to all stakeholders. We await a response from the Department.

IV. CURRENT PROPOSALS WOULD BIAS THE PROCESS AND HARM THE ENVIRONMENT

American Rivers and the Hydropower Reform Coalition oppose the hydropower language in the Energy Bill because it will increase regulatory complexity, decrease certainty, lengthen the timeline of license issuance, provide unjust advantages to hydropower dam owners, interfere with the full participation of states, tribes, homeowners, businesses, and other members of the interested public presently provided under the Federal Power Act, and diminish environmental quality. It should be rejected. Rather than providing a simple fix to the industry's complaint that decisions by resources agencies should be subject to administrative appeal, the language in the Committee discussion draft would undermine the entire resource agency process by: 1) giving hydropower interests unfair advantages at the expense of tribes, states, anglers, and other stakeholders; 2) creating unnecessary complexity; and 3) reducing standards for environmental protection.

A. Title II would give hydro license applicants unprecedented power and access to special processes to address their interests.

Currently, the Federal Power Act's hydropower licensing provisions create an open, equitable process in which the dam owner initiates the proceedings with its intent to file an application, but thereafter, other interested stakeholders have the same rights to participate all the way through administrative appeal to judicial review. See 18 C.F.R. §§380 and 385. The relicensing provisions of the Energy Policy Act Discussion Draft would drastically alter this balance for projects involving fish passage and public lands.

Section 231 of the discussion draft grants dam owners seeking a license for a hydropower dam the right to appeal an agency decision using a "trial-type hearing" on the record. Other parties are allowed to comment on these proceedings, but may not initiate them. Providing such a hearing to the license applicant, presumably to challenge conditions that are too onerous, but not granting other parties the chance to challenge weak conditions, is simply unequal treatment under the law and bad public policy. Industry argues that the public has multiple opportunities to have its views heard earlier in the licensing process. So does the license applicant. What matters most is whether the opportunities are even-handed; we ask Congress to ensure that everyone has the same opportunities to be heard, as they have had throughout the history of the Federal Power Act.

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[13] 67 Fed. Reg. 77451 (Dec. 18, 2002).

[14] 64 Fed. Reg. 54602 (Sept. 9, 2004).

Section 231 also allows license applicants the exclusive right to compel the resource agencies to adopt alternative conditions from those issued by the agencies under sections 4(e) and 18. In offering this new authority only to license applicants, this legislation would again prejudice other parties involved in the licensing process—not just conservationists, but also state agencies, tribal interests, irrigators, neighboring landowners and recreationists. Offering alternatives that must be included by the Secretary is an unnecessary infringement on the agency's authority and expertise, but granting this preferential treatment to hydropower interests is patently unjust, unfair, and inconsistent with every other element of the Federal Power Act. This provision also runs counter to the right of the public to participate in the management of the nation's rivers.[15]

B. The hydroelectric relicensing title would make a complex process more so.

At a time when everyone is working to streamline hydropower licensing, the Hydroelectric Title adds complexity through the addition of three new administrative processes for each affected agency:

- Trial-type hearings for license applicants—This is an incredibly complex and costly proposal to administer and would enable dam owners to call witnesses and cross-examine agency witnesses before an Administrative Law Judge. In its discussion of proposed rules to establish an appeals process for license applicants, the Department of the Interior recently argued against imposing a trial-type hearing, stating that it could prolong the current licensing process by up to two years.[16] FERC itself has largely abandoned this practice for its hydropower proceedings in favor of paper processes.
- Consideration of applicants' alternative resource conditions—The license applicant would be granted the opportunity to offer alternative conditions that the Secretary must accept provided the alternative meets certain standards. This process would require additional staff, steps, and analysis; and
- The Commission's Dispute Resolution Service—If the dam owner continues to disagree with the agency, despite each of the steps above, the dam owner may seek review by the Commission's Office of Dispute Resolution, an office with no authority or experience to resolve differences in these cases.

Another new process would mandate that federal resource agencies consider eleven new factors in developing their environmental conditions. Consideration of these factors places an enormous burden on the resource agencies. At present, the relevant state and federal agencies do not have sufficient staff or funding to meet these proposed requirements for new, complex analyses clearly beyond the scope of their resource protection responsibilities and well beyond their expertise. Many of the new procedures and mandates placed on resource agencies are redundant with the Commission's role in relicensing. Currently, FERC is charged with considering a range of factors when it issues a license under the FPA, with the cooperation and input of federal agencies on issues where they add expertise—in this case fisheries and land management.

Having the agencies undertake an additional evaluation would be not only be duplicative; it would also fundamentally realign the agencies' role in the licensing process, which is currently to establish necessary and appropriate environmental protections—a floor of environmental protection—and to leave the balancing of power development versus other factors beyond those basic protections to the Commission. For these reasons, American Rivers and the Hydropower Reform Coalition strongly oppose these provisions.

Adding new responsibilities and procedures for resource agency staff will do little to address timeliness or streamline complexity. A more useful and appropriate approach would be to enhance agency capability by ensuring that annual fees collected by FERC from licensees for resource agency relicensing expenses under Section 1701(a) of the Energy Policy Act of 1992 be reimbursed directly back to those agencies, instead of going into the general Treasury. Today, these agencies are stretched near the breaking point and must have additional resources to keep up with their present level of involvement, much less this proposed increase in responsibility.

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[15] "The public must retain control of the great waterways. It is essential that any permit to obstruct them for reasons and on conditions that seem good at the moment should be subject to revision when changed conditions demand." President Teddy Roosevelt, 1908

[16] 69 Fed.Reg. 54603, col. 2 (Sept. 9, 2004).

C. *Title II would diminish environmental quality*

The language of the hydropower relicensing title in the Discussion Draft eliminates the basic guarantee that alternative license conditions would provide equivalent protection to those proposed by the agencies, establishing a new standard that invites administrative and judicial second-guessing of the protections for fisheries and federal lands. In addition, it forces the resource agencies to give private costs the same level of consideration as the protection of public resources.

The standard for section 18 alternative conditions is even more harmful. Rather than requiring the installation of a fishway, this proposal would establish a standard that the alternative be "no less protective of the fish resources" than the fishway originally proposed by the fishery agency. No one really knows what is meant by "fish resources." This language could allow the substitution of hatcheries, habitat, or even mitigation funds in lieu of fish passage, none of which will move fish past the dam. Loss of spawning habitat and movement of fish into their historic range cannot be mitigated by hatcheries or downstream habitat improvements. There are many interests in moving fish past dams that go beyond the "protection of fish resources," such as fishing access and treaty obligations.

VI. CONCLUSION

Being a good environmental steward is a legitimate cost of doing business. If a project is already unprofitable because of market forces or because it is run poorly, it should not be exempted from any environmental conditions. According to the courts, "There can be no guarantee of profitability of water power projects under the Federal Power Act; profitability is at risk from a number of variable factors, and values other than profitability require appropriate consideration."[17] We urge the Committee not to make environmental protections the scapegoat for licensing marginal projects nor to allow utilities that have never mitigated for their environmental impacts to continue to benefit from a sweetheart deal at the public's expense.

American Rivers and the Hydropower Reform Coalition believe that there should be stricter environmental conditions at hydropower projects, while many in the industry believe that there should be fewer. Perhaps that is a signal that things are working. Whichever position one believes, the Committee's Discussion Draft of the Energy Policy Act would only make the relicensing process more complex and litigious and would threaten public trust resources that already bear the brunt of relicensing delays. We urge the Committee to defer to the Commission's new Integrated Licensing Process to truly improve the hydro licensing process and to reject measures that undercut environmental protections and place the voice of license applicants over that of other parties.

We understand and appreciate the value of hydroelectric power. It is a valuable source of emissions free energy and provides numerous other benefits including being the cheapest source available. Unfortunately, its legacy of impacts to our nation's rivers has been neglected too long. Now is the time to bring these dams up to modern environmental standards, not to continue the status quo. For the reasons outlined in my testimony, we urge the members of this Committee to oppose the Hydroelectric Title of the discussion draft and to oppose this bill.

Mr. SHIMKUS. Thank you. And I want to personally applaud the panel for really abiding by the 5 minutes. Everybody is right on time, and this is very helpful, especially when there is a long panel. I am saying that because I know who is coming up next, so I will put him on notice. Mr. John Shelk, Senior Vice President, Government Affairs for the National Mining Association, previously served as Counsel to the House Committee on Energy and Commerce, where he worked on the Clean Air Act Amendments of 1990 and what became the Energy Policy Act of 1992. He served as Senior Advisor to the ranking Republican on the Energy and Commerce Subcommittee on Fossil and Synthetic fuels for most of the 1980's. Prior to his present assignment, John was Director of Government Affairs for Calpine Corporation. Other private sector positions have included Vice President of the American Gaming Association, Assistant General Counsel of ITT Corporation, Federal Affairs Counsel for the Hartford. John also practiced law in California for Gibson, Dunne, and Cruthcher. I am going to know everything about you here in a minute. John is an honors graduate of Georgetown University College of Arts and Sciences. He received his juris doctorate degree from Georgetown Law Center. Welcome. Again, as everything else—your full statement is in the record. You have 5 minutes. Thank you.

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[17] *Wisconsin Public Service Corp. v. FERC,* 32 F.3d 1165, 1168 (7th Cir. 1994)

STATEMENT OF JOHN E. SHELK

Mr. SHELK. Thank you, Mr. Chairman. And most importantly, I was born in the State of Illinois. I appreciate that link, but also glad to be here on behalf of the National Mining Association. And we are pleased to urge the committee, in what we hope will be a bipartisan basis, to move swiftly and favorably on a comprehensive energy bill this year, one that is certainly long in the making. NMA represents producers of coal, the fuel that helps generate over one-half of the Nation's electricity. Our members also include minerals and metals producers as well as equipment manufacturers, and so as a result, we approach energy issues as both users and producers of energy.

We commend Chairman Barton and Chairman Hall and the members of the committee for moving forward early this year based on the conference report in 2003. And the short title this year, we think, say it all. The short title says "the Energy Policy Act of 2005," and then it goes on to say "ensuring jobs for our future with secure and reliable energy." And we believe that the Nation's abundant coal reserves should play a major role in accomplishing those objectives of jobs and security, all while continuing to improve the environment. As others have mentioned, the Energy Information Administration projects the demand for electricity will increase 50 percent in just the next 20 years. Multi-billion dollar investments must be made, starting today, to meet that increased demand.

Coal's track record in power generation, as well as the potential for new uses in gasification for chemicals and liquefaction for transportation, are impressive and the reasons, we believe, are straightforward. Coal is a domestic fuel; it is reliable; it is affordable; and it is increasingly clean. The EIA forecast confirms coal's significant price advantage over other fuels throughout the forecast period, and there is no denying the fact that states with the highest percentage of coal-fuel power generation generally have the lowest consumer electricity rates.

We are happy to report that that track record continues while improving the environment. Since 1980, while the amount of coal used to generate electrify has grown 75 percent, emissions from coal-fuel power plants are 40 percent lower, and that improvement will only accelerate and continue if this legislation is passed and companion legislation, such as Clear Skies, is also acted upon.

At a time of heightened concern about foreign supplies, almost all coal used in the United States is produced here. Coal production has increased over the last 25 years. The EIA projections show that the industry is capable of meeting increased demand, going forward, and as many of you know, certainly from Illinois and Ohio, we have over 200 years of coal reserves.

The Energy Policy Act of 2005 that is proposed for the committee, following bipartisan support for such provisions in the past, should include, among others, 3 basic programs for coal. No. 1: a 5-year basic R and D program. No. 2: the Clean Coal Power Initiative. And No. 3: Chairman Barton's Clean Air Coal Program. Basic research is really geared toward continuous environmental improvement, and power generation in the bill requires an expansion of the program so that basic research includes carbon capture and sequestration.

As to the second initiative, the Clean Coal Power Initiative, the bill would take technologies that are demonstrated and bring them to commercial scale at both existing and new plants, and it really builds upon the success of the existing public/private partnership, which involves funds from industry along with funds from government, which has produced the low NO_X burner technology used in over three-fourths of all power plants, and measures that have been developed to date to cut the cost of sulfur removal in half.

We appreciate the statements recently from a broad cross-section of natural gas users, calling for greater use of coal to help us devise a strategy to ease the persistent and costly natural gas crisis. Under the 2 phases of the Clean Air Coal Program added in 2003, there are joint public/private partnerships to reduce emissions of SO_X, NO_X, and mercury, as well as new generation technologies for the increased demand and the replacement of existing units, projected by EIA and others. And this program is complimentary to the other 2, for it really takes the technologies that are demonstrated and commercialized and actually deploys them on a basis that will help the economy and help energy security.

I would be remiss if I didn't add that a part of the package that is very important is the tax incentives that were in the bill last time, and we appreciate the fact that this committee, on a bipartisan basis, has supported them, and that they are included in the package in the discussion draft, and that is very, very important. Now, let me also say we strongly recommend that the Congress continue to facilitate a broad suite of technologies. We share the view widely held within the coal-based generation stakeholder community that it would be a mistake to select any one technology over any other.

In conclusion, Mr. Chairman, we know from past experience here and in the 1990's that energy legislation is never easy. But we also know that the world had changed very, very dramatically since this committee, under its capable leadership, produced comprehensive energy legislation in 1992, which doesn't seem that long ago, but in fact, it is. The increasingly global world economy, which has only become more global and more competitive in the time that the Congress has considered this version of the bill, demonstrates that each and every day, we are competing more and more with China, India, and others for resources. Conservation and efficiency, as well as all the other fuels represented on these panels, should play major roles in a comprehensive energy strategy. We suggest that we also must make greater, wise, and increasingly cleaner of our abundant, domestic coal reserves as a major part of that strategy, and we appreciate the opportunity to testify today and to participate in the process going forward. Thank you.

[The prepared statement of John E. Shelk follows:]

PREPARED STATEMENT OF JOHN E. SHELK, SENIOR VICE PRESIDENT, GOVERNMENT AFFAIRS, NATIONAL MINING ASSOCIATION

Mr. Chairman, I am John Shelk, Senior Vice President for Government Affairs of the National Mining Association (NMA). We commend you for holding this timely and important hearing to underscore the urgent need for Congress to enact comprehensive energy legislation.

National energy legislation should include policies to encourage both greater domestic production and more efficient use of energy. The need for such legislation is even more important today than when the Congress, led by this Committee, began to develop an energy bill over four years ago. We applaud you for your perseverance in pursuing comprehensive energy legislation, including the hard work that went into fashioning the conference report for H.R. 6 in 2003. We welcome the opportunity to work with you and your colleagues as Congress develops legislation for what we hope is prompt and favorable action in 2005.

NMA represents producers of over 80 percent of the coal mined in the United States. Coal continues to be the reliable and affordable domestic fuel used to generate over 50 percent of the nation's electricity. NMA members also include producers of uranium—the basis for 20 percent of U.S. electricity supply. NMA represents producers of metals and minerals for which energy is a major cost of doing business. Finally, NMA includes manufacturers of processing equipment, mining machinery and supplies, transporters, and engineering, consulting, and financial institutions serving the mining industry.

NMA's statement today will first discuss the compelling need for comprehensive energy policy legislation and the importance of coal in our nation's energy mix. I will then focus on the proposed legislation as it relates to coal and the development of technologies that will ultimately lead to greater use of coal with near zero emissions. We greatly appreciate the bipartisan support for coal in the Committee as reflected in both the House-passed version of H.R. 6 in the 108th Congress and the conference report mentioned earlier. Therefore, we welcome the release last week of legislative language based on the H.R. 6 conference report as the framework for these hearings. While our comments focus on the matters under this Committee's direct jurisdiction, we are grateful for your support for Clean Coal Technology tax incentives and the production components that complement the program authorizations developed by this Committee.

ENERGY IN THE UNITED STATES AND THE NEED FOR A BALANCED ENERGY POLICY

Energy, whether it is from coal, oil, natural gas, uranium, or renewable sources, is the common denominator that is imperative to sustain economic growth, improve standards of living and simultaneously support an expanding population. The significant economic expansion that has occurred in the United States over the past two decades, and the global competitiveness of U.S. industry, have been due in large part to the availability of reliable and affordable energy, much in the form of electricity generally and in coal-fired electricity specifically. In the summer of 2000 this U.S. advantage in world markets began to break down as too much energy demand began chasing a relatively limited energy supply. As a result, prices of energy, especially of gasoline and natural gas, increased sharply. Spot shortages of electricity occurred.

Although short term measures were taken to address electricity supply issues, these were high cost solutions—mainly construction of peaking facilities using natural gas. This was a continuation of a decade old trend as almost all of the new power plants constructed since the early 1990's have been gas-fired. This caused an over-reliance on one fuel that resulted in sharply higher prices for natural gas for consumers, industry and for electric generators.

According to the Energy Information Administration (EIA)[1], the average cost of natural gas to home consumers is 58 percent higher now than in 1999 (which was just before energy prices began to increase sharply). The cost of natural gas to manufacturers is 98 percent higher today, causing many manufacturers to close U.S. operations in favor of moving to offshore locations with lower energy costs. This has been particularly devastating to domestic chemical and fertilizer manufacturers and hence farmers and others who depend on those products. High natural gas prices have cost the United States over one million high paying manufacturing jobs that will not return to our country. Indeed, additional jobs will be lost without a national energy policy that addresses the serious need to increase domestic energy supplies and lower the real cost of energy to manufacturers.

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[1] Monthly Energy Review, January 2005, Section 9 "Energy Prices." Energy Information Administration.

There is no doubt that with our abundant domestic reserves, coal can play an even bigger role in the electric generation market in the years to come, thus freeing up supplies of natural gas for industry. Over time, there is also an increasing potential for greater coal gasification and coal liquefaction in the production of chemicals and other forms of energy such as hydrogen.

EIA's long range forecasts show that the trends experienced in the U.S. over the last 20 years—economic growth, greater efficiency and a move to higher electricity demand—are expected to continue over the next two decades. Real economic growth is forecast to increase by an average 3.1 percent per year through 2025. Reflecting greater efficiency, the use of energy will grow by a slower 1.4 percent per year on average or by a total of 35.5 percent to 133 quadrillion Btu. Consumption of all sources of energy will increase: petroleum by 39 percent, natural gas by 39 percent, coal by 34 percent and renewable energy by 37 percent. And, the economy will become even more dependent upon electricity over the next 20 years—consumption of electricity will increase by an average 1.8 percent per year, or by 45 percent over the next two decades. If the past is a guide, this electricity forecast is conservative.

At the same time, production of energy in the United States is expected to increase by only 0.7% annually on average—meaning that imports will have to increase or other measures taken. Coal is the only domestic source of energy that is expected to increase production sufficiently to meet demand. Imports of petroleum and petroleum products are expected to increase at a 2.4 percent per year rate and imports of natural gas are forecast to increase at a rapid 4.1 percent annual pace. We are becoming more, not less, dependent on foreign sources of energy to meet our energy needs. As energy demands increase globally, led by extraordinary economic growth in China and other developing countries, the United States will face very strong competition for foreign energy supplies. This alone is justification for a comprehensive national energy policy. A strategy that encourages expansion and use of domestic energy supplies, as well as conservation and efficiency, is imperative if the United States is to maintain an acceptable level of energy and economic security.

The lack of an energy policy has exacerbated the U.S. supply-demand imbalance. The U.S. is fortunate to have a large domestic energy resource base and an established, although aging, energy delivery infrastructure. To meet future demands, however, our energy policy must be redirected to one that encourages efficient, environmentally sound development of our nation's vast resource base and the use of technologically advanced methods to process, transport, and use that energy. Our strategy must be grounded in market oriented policies that lead to adequate, diverse, and secure supplies. A responsible policy will promote new energy technologies, limit use of "command and control" regulation, and support use of incentives.

COAL'S CENTRAL ROLE IN THE U.S. ENERGY MIX—PRESENT AND FUTURE

Coal reserves, which are geographically distributed throughout the U.S., comprise the greatest share of the nation's overall energy resource base. The domonstrated coal reserve is over 500 billion tons with economically recoverable reserves of over 275 billion tons. This is a reserve large enough to support coal demand for well over 200 years at current rates of use.

Of all our domestic energy resources, coal is the only source that has increased production over the last 25 years (although natural gas production, after declining, has returned to near 1980 levels). Coal production has increased from 830 million tons in 1980 to 1.111 billion tons from mines in 26 states in 2004. By 2025, EIA projects coal production of 1.488 billion tons. The coal industry contributes over $175 billion annually to the economy through payrolls and purchases of goods and services, while coal industry tax revenues add at least $2 billion annually to state and local government treasuries. The industry directly and indirectly employs nearly 1 million people and the employment opportunities continue to grow in what have become high-technology jobs in today's modern mines.

Electricity generated from coal is used in all 50 states. Last year more than 1 billion tons of coal generated over 50 percent of all electricity used in the U.S. The industrial market for coal (at approximately 32 million tons per year) and the domestic market for coking coal used in steel production (24-26 million tons per year) are important, but small in comparison to the power generation market. The U.S. also exports some coal, approximately 52 million tons in 2004.

The EIA forecast shows that by 2025, electricity use will increase by nearly 50 percent over today's levels. Coal use for electricity will total at least 1.425 billion tons in 2025, some 400 million tons, or 42 percent more than current levels. The reasons are straightforward: coal is domestic, reliable, affordable, and increasingly clean. Since 1980, while the amount of coal used to generate electricity has grown 75 percent, emissions from coal-fueled power plants are 40 percent lower than in 1980. New advanced clean coal technologies will enable this trend to accelerate, allowing greater use of coal with increased efficiency and lower emissions of the criteria pollutants (SO_2, NO_X, and PM) and mercury as well as lower emissions of carbon dioxide both overall and per unit of electricity generated. In sum, coal is indispensable in the U.S. energy mix and as such will provide a major part of our nation's future requirements.

US URANIUM IS ALSO AN IMPORTANT PART OF THE US ENERGY MIX

While NMA was asked to speak primarily about coal, we would be remiss if we did not point out that the United States uranium recovery industry is also essential in the nation's energy supply mix. Today, nearly 20 percent of America's electricity comes from nuclear power, which translates into the consumption of about 45 million pounds of uranium each year. However, the collapse in uranium prices since 1980 has produced a sharp decline in the viability of the U.S. uranium mining industry. America's remaining uranium miners produce only about 3 million pounds— or just 6 percent of nuclear utilities' annual uranium requirement. The balance of the uranium comes from rapidly declining inventories in the hands of the utilities, the federal government, and foreign entities.

Historically, the U.S. was the world's leading producer of uranium and still has extensive proven reserves of natural uranium that offer the potential for secure sources of future supply. Only a strong domestic uranium recovery industry can assure an adequate long-term supply to preclude threats of foreign supply disruptions or price controls that could adversely affect the nation's security. Therefore, the federal government must foster policies that ensure a strong and viable domestic uranium industry and remove barriers to domestic production of existing sources of uranium. The proposed legislation will assist in this goal by authorizing uranium research.

HOW ENERGY POLICY LEGISLATION SUPPORTS FUEL DIVERSITY

Following the model of H.R. 6 in the 108th Congress, the Energy Policy Act of 2005 should continue to have many provisions that, once enacted, will encourage greater use of coal for electric generation with continuing improvements in the environment through further reduction of emissions associated with coal use. Ultimately, if the programs included in the bill are fully funded, the resulting suite of advanced clean coal technologies that will be developed will mean that emissions from coal fueled power could be near zero.

Without a doubt, the nation will continue to rely on the existing 876.3 GW[2] generating fleet (including 303 GW of coal-fueled capacity from over 1,000 coal fueled power plants) to meet electricity demand. But that is not enough to satisfy the 50 percent increase in electricity that will be required by 2025. Between now and 2025, at least 263 GW of new electric generating capacity must be built to meet new demand and to replace the capacity that will be retired in this period. As coal generation is expected to increase by nearly 50 percent, the nation must rely on both the existing coal-fueled fleet and at least 100GW of new coal capacity that must be built during this time.[3]

H.R. 6 included provisions that support the research, development and deployment programs that are necessary to ensure that advanced clean coal technologies are available for use in this new fleet by having been commercially proven on a timely basis. This research work should include projects to develop technologies to capture and sequester carbon. Such technologies provide an option to address carbon-related concerns by actually reducing emissions without harming the U.S. economy, as would occur from unilateral emissions caps.

As in H.R. 6 from the 108th Congress and in the draft coal provisions of the Energy Policy Act of 2005, comprehensive energy legislation should include authorizations and program requirements for:

- A five year basic coal research and development program:
- The Clean Coal Power Initiative; and
- Chairman Barton's cutting-edge Clean Air Coal Program.

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[2] Existing net summer capacity for electricity generators and independent power producers on January 1, 2004. This capacity does not include combined heat and power plants, or generating capacity used for commercial and industrial uses only. Source: EIA, Electric Power Annual 2003.

[3] Annual Energy Outlook, 2005.

BASIC COAL RESEARCH AND DEVELOPMENT

The 2005 version of an energy bill should continue to authorize a $1.4 billion basic coal research and development program centered on a suite of technologies to be carried out by the Department of Energy. This basic research is important to advance coal generation and also to advance other uses of coal as over time coal can be converted into liquid fuels and into hydrogen for fuel cells—among other new uses.

The stated purpose of the program is to facilitate production and generation of coal based power through innovations for existing plants, research to improve integrated gasification combined cycle plants, advanced combustion systems, turbines for synthesis gas derived from coal, carbon capture and sequestration research, coal derived transportation fuels and chemicals, solid fuels and feed stocks, advanced coal-related research, advanced separation technologies and other technologies that make the most and best use of our abundant domestic coal reserves.

The initial thrust of the program is electricity generation and continual improvement in the quality of our environment, which is as important as the availability of affordable electricity. Technologies developed by DOE coal research programs have already achieved commercial success, contributing to the sharp decline in emissions of criteria pollutants over the last three decades as the nation's air quality has greatly improved during that time period.

It is important to continue and expand these research programs, to develop coal-based generation technologies that further improve efficiency, environmental performance, and cost competitiveness beyond that of facilities in service or demonstrated to date. These technologies should include a coal based zero emissions electricity and hydrogen project. Research to find ways to capture, sequester, and dispose of carbon dioxide should be accelerated so that cost effective technologies are available to do so. This program correctly encourages research on a suite of technologies, rather than have Congress picking technology winners and losers, as it would not be prudent to focus and depend on only one technology pathway.

Importantly, this program also includes research on technologies that use coal in non-traditional ways such as liquefaction. Over time, technology advancements will allow cost effective conversion of coal to hydrogen and coal to oil. Development of new technologies takes time and it is prudent to advance research now on technologies to use coal in different ways so that they are commercially available in future years.

THE CLEAN COAL POWER INITIATIVE

The Clean Coal Power Initiative (CCPI) is a $2 billion, 10 year program designed to demonstrate commercial coal based applications of technologies for new and existing coal fired plants that will advance efficiency, environmental performance and cost competitiveness beyond that of facilities that are in commercial service today. It is a demonstration program to move a suite of technologies from bench scale to demonstration on a commercial scale.

CCPI builds upon the DOE Clean Coal Technology program that has already had a number of successes. For example, low NO_X burner technology developed through the program is now on 75 percent of U.S. coal fired power plants. The program has also resulted in scrubber technology that has nearly halved capital and operating costs for sulfur removal.

The CCPI provides funding for a necessary part of development—the demonstration of technologies at commercial scale. This step is a costly process and one that cannot readily be undertaken by private industry alone. However, it is also important to stress that the CCPI program is a DOE—industry partnership. The legislation continues the practice of requiring a 50 percent private sector cost share.

The CCPI is in addition to completion of the important FutureGen project, a jointly funded industry-government partnership to construct a commercial scale integrated gasification combustion technology plant with carbon sequestration. We are pleased that the proposed DOE budget for FY2006 continues FutureGen as a budget priority.

THE CLEAN AIR COAL PROGRAM

This title from the H.R. 6 conference report provides a $2 billion authorization for the Department of Energy to carry out a new clean coal technology deployment program to accelerate the use of technologies that have been demonstrated (they are beyond the CCPI program) but not yet adopted for widespread commercial use. The program is in two phases. In Phase One (FY2006 through FY2010) projects are authorized for a total of $500 million and must address the immediate needs of the power industry to have a broad selection of pollution control equipment that can be installed on existing power plants. This is an important program to help existing units comply with the additional SO_2, NO_X, and mercury reductions that will be required either by regulation or through enactment of multi-emissions legislation such as the proposed Clear Skies Act. Phase Two is an authorization of $1.5 billion over FY2007 through FY2012 to promote new coal generation technologies to meet new demand or replace existing capacity. Again, this is designed to move technologies beyond the demonstration stage to actual commercialization; thus each of these programs is complementary to one another.

The Clean Air Coal Program will mitigate the financial risks associated with early commercialization of new technologies. It is specifically designed to help utilities meet both current and future obligations under the Clean Air Act through loans or loan guarantees, but the total federal amount will be limited to 50 percent of the cost of a given project. The funds will be available to those utilities installing pollution control technologies that meet efficiency and emissions reduction requirements established by the Secretary of Energy.

This program will assist utilities with funding the multi-billion dollar capital expenditures that will be required over the next 10 years to reduce emissions. It will facilitate the use of coal to ease the natural gas crisis even as emission requirements are ratcheted downward. In turn, this will free up natural gas for industrial uses to benefit the economy by making our manufacturing base more competitive and by preventing additional jobs from exiting the country.

MATTERS NOT TO INCLUDE IN A COMPREHENSIVE ENERGY BILL

Mr. Chairman, while our testimony focuses on the important coal-related provisions to include in a comprehensive energy bill, it is also important to stress what matters should be left out if we are to make the most use of our abundant coal reserves. The Conferees on the part of the House have consistently acted on a bipartisan basis to reject proposals from the other body for an ill-advised Renewable Portfolio Standard (RPS) and for mandatory carbon-related provisions. Decisions about an RPS are best left to the States for a variety of reasons, including differences in regional energy resources as well as the impact on electricity costs. As noted earlier, several of the research programs we support include carbon sequestration and other technology-based approaches, including those that promote energy efficiency. We continue to believe that is the right approach because it will be far more effective than unilateral mandatory restrictions on U.S. carbon emissions.

CONCLUSION

Mr. Chairman, enactment of comprehensive energy legislation is not easy. Congress has not turned a comprehensive energy bill into law since 1992—well over a decade ago. But, for all the reasons stated earlier, the hard work of the past several Congresses must result in enactment this year of a balanced, comprehensive bill. Our economy, energy security, and environment will all improve with timely enactment and implementation of comprehensive energy legislation.

Mr. Chairman, we have always been a "can-do" country in which technological advancement is among our major achievements. We have the domestic coal resources to help power the country forward in the globally competitive times in which we live. We must do so while continuing to meet the public's environmental expectations. NMA's energy producers and manufacturers look forward to working with you to make us more competitive while continuing to improve the environment. Thank you again for the opportunity to testify at today's hearing.

Mr. SHIMKUS. Thank you. Next panelist is Mr. Alan Nogee, Director of Clean Energy Program, Union of Concerned Scientists. He has testified on environmental issue and electricity restructuring before legislatures and regulatory agencies in Massachusetts, Connecticut, Vermont, New Hampshire, New Jersey, and has assisted organizations involving in the restructuring process in New England, New York, Pennsylvania, and at the Federal level; he has testified before us before. Mr. Nogee serves on the National Green Power Board and on the Board of Directors of the Renewable Energy Policy Project. He has directed the Energy Program of the Massachusetts Public Interest Research Group and worked as an energy analyst with the Environmental Action Foundation in

Washington D.C. and with State and regional energy organization in Pennsylvania. He has published numerous articles and reports. We are glad to have you. You have 5 minutes.

STATEMENT OF ALAN NOGEE

Mr. NOGEE. Mr. Chairman and members of the subcommittee, thank you very much for this opportunity to appear today. America needs a national energy policy that prioritizes cost effective energy efficiency and renewable energy. We need a national renewable electricity portfolio standard.

We wish that voluntary programs and incentives were sufficient, but they are not. Few even remember that you tried that approach in 1992 when you enacted the production tax credit along with a goal of increasing renewable energy use by 75 percent. Despite some recent progress in voluntary markets, three-fourths of renewable energy development today is occurring in the 18 States plus the District of Columbia that have enacted renewable portfolio standards, even though most of those standards are barely kicking in. Those programs prove that renewable standards are effective, affordable and popular. They also prove that State action is not enough.

State standards will raise the national total of renewable technologies, in additional to our existing HydroBase, up to 40,000 megawatts by 2020; yet analyses by EIA and by my organization, USC, show that a 10 percent national standard yielding 10,000 megawatts or even a 20 percent standard yielding 200,000 megawatts would bring enormous national benefits. A 20-percent RPS would reduce the price of natural gas by up to 9 percent for all consumers, including farmers struggling to pay fertilizer prices and industrial customers who are moving tens of thousands of jobs overseas to avoid high U.S. natural gas prices. That is why companies like Dow, Juan Santo, and others recently joined in a statement recommending a renewable or clean energy standard along with other demand and supply measures to address natural gas problems.

Even when gas prices were much lower in 2002, EIA found that a 10 percent renewable standard would cost electricity customers virtually nothing, 1 mil per kilowatt hour in 20/20, but would reduce total electricity and gas bills. With today's gas prices, EIA's model shows that a 20 percent RPS would save $11 billion for electricity consumers and $14 billion for gas consumers. Using our cost projections, the savings from a 20 percent RPS would double, to $49 billion. A 20 percent renewable standard would also mean 150,000 to 157,000 net additional jobs, $16 billion in income to farmers, and $5 in new property tax revenues for local communities. These benefits unfortunately will not be realized without a national RPS. Instead, utilities will go on largely choosing gas and coal plants, imposing higher costs on consumers, increasing our dependence on imported LNG, and adding to the cost of reducing harmful air pollution.

A 20 percent renewable standard would reduce the project growth in power plant carbon emissions by 59 percent. Even for those who believe there is only a remote chance that all of those climate scientists that work for the IPCC are right, I hope we can see that free insurance against that risk is a good bargain. With a national RPS, every region will use more homegrown renewable energy, and manufacturing jobs for renewables would be spread throughout the country, including Rustbelt States like Ohio, Michigan. Illinois, Indiana, Pennsylvania, and southern States like South Carolina, North Carolina, Tennessee, Alabama, Georgia, Virginia, and Florida.

No one likes mandates, but sometimes they are necessary. The House voted for a renewables fuel mandate even though EIA shows that it would be more expensive than a renewable electricity standard and even though the benefits of renewable electricity would be much more widely dispersed. If you would like a renewable fuel standard, as we would, without an MTBE liability waiver, you should love a renewable electricity standard.

Finally, we appreciate your past support for the renewable production tax credit and urge you to support a long-term extension for all renewables, including geothermal, to give stability to this important market. The discussion draft of the Energy Policy Act deems coal, oil, gas, and nuclear worthy of national policy support. Renewable energy is still trying to break into a market skewed by tens of billions of Federal subsidies for fossil and nuclear sources over many decades. Please don't leave the critical, national price stability, national energy security, job-creating, clean energy benefits of renewable energy to volunteers. Thank you.

[The prepared statement of Alan Nogee follows:]

PREPARED STATEMENT OF ALAN NOGEE, DIRECTOR, CLEAN ENERGY PROGRAMS, UNION OF CONCERNED SCIENTISTS

I. INTRODUCTION

The Union of Concerned Scientists (UCS) is a nonprofit organization of more than 60,000 citizens and scientists working for practical environmental solutions. For more than two decades, UCS has combined rigorous analysis with committed advocacy to reduce the environmental impacts and risks of energy production and use. Our Clean Energy Program focuses on encouraging the development of clean and renewable energy resources, such as solar, wind, geothermal and bioenergy, and on improving energy efficiency.

We favor the adoption of policies to increase the use of renewable energy resources in our nation's electricity generation mix. Such policies are needed to meet our future electricity needs, diversify our electricity supply, reduce the vulnerability of our energy system, stabilize electricity prices, and protect the environment. Specifically, we endorse a renewable electricity standard, also known as a renewable portfolio standard (RPS)—a market-based mechanism that requires utilities to gradually increase the portion of electricity produced from renewable resources.

The United States is blessed by an abundance of renewable energy resources from the sun, wind, and earth. The *technical* potential of good wind areas, covering only 6 percent of the lower 48 state land area, could theoretically supply more than one and a third times the total current national demand for electricity. We have large untapped geothermal and biomass (energy crops and plant waste) resources. Of course, there are limits to how much of this potential can be used *economically*, because of competing land uses, competing costs from other energy sources, and limits to the transmission system. The important question is how much it would cost to supply a specific percentage of our electricity from renewable energy sources. As this testimony will show, *analyses by both UCS and EIA demonstrate we could generate at least 20 percent of our electricity from renewable energy sources by 2020,* in addition to our existing hydro resources, while reducing prices for both electricity and gas customers.

In this testimony, I will review the evidence that shows that increasing renewable energy will save money for consumers, improve energy and national security, create jobs and income for American farmers and workers, improve the environment and reduce financial risks for utilities. I will also address why an RPS, along with other policies, is necessary to achieve these benefits, and why continuing to rely only on voluntary and state efforts will impose higher costs on families and businesses, weaken energy security, and harm the environment for all Americans. Finally, I will offer our recommendations and comments on specific sections of the discussion draft as they pertain to renewable energy.

II. RENEWABLE ENERGY CAN REDUCE NATURAL GAS AND ELECTRICITY PRICES.

Energy is critical to our economy. Stephen Brown, director of energy economics at the Dallas Federal Reserve Bank, notes that "nine of the 10 last recessions have been preceded by sharply higher energy prices."

Today's high natural gas prices, caused in part by a boom in natural gas power plant construction, are causing economic harm. In the February 11, 2005 release on the Short-Term Energy Outlook, the Energy Information Administration (EIA) found that the average Henry Hub natural gas spot price was $6.32 per Mcf in January. EIA estimates spot prices at Henry Hub will average $5.45 per Mcf in 2005 and $5.77 in 2006. These natural gas prices today are more than double their 1990's levels.

Because natural gas accounts for about 90 percent of the costs of fertilizer, escalating prices have put farmers under a severe economic hardship. Some manufacturing facilities and industrial users that rely heavily on natural gas have already had to reduce operation or move their factories overseas. On February 17, 2004, The Wall Street Journal reported that the US petrochemical industry, which is heavily dependent on natural gas for a primary feedstock as well as for fuel, has lost approximately 78,000 jobs to foreign plants where the natural gas is much cheaper.

Natural gas prices show no signs of returning to historic levels. EIA has raised its forecast of long-term natural gas prices has increased for each of the last seven years. Moreover, a recent Lawrence Berkeley Lab study has found that EIA's gas forecasts have been and continue to be at least 50 cents/mmBTU lower than market forecasts, based on gas futures contracts.

Renewable energy can help reduce the demand for natural gas and lower gas prices. On January 5, 2005, the Lawrence Berkeley National Laboratory (LBL) released a review of 13 studies and 20 specific analyses using different computer models and different assumptions. The analyses all confirmed that renewable energy (and energy efficiency) can reduce gas demand and put downward pressure on natural gas prices and bills by displacing gas-fired electricity generation. They found that the higher the level of renewable energy penetration, the more gas is saved, and the more gas prices are reduced. The LBL study also shows how these results are broadly consistent with economic theory, with results from other energy models, and with limited empirical evidence. Many of the analyses LBL reviewed were conducted by EIA and by UCS.

Even in 2002, when gas prices and price projections were considerably lower than they are today, an EIA analysis conducted at the request of Senator Frank Murkowski (R-AK) showed that a 10 percent renewable electricity standard like the one that subsequently passed the Senate would have a negligible impact on electricity prices. EIA found only a one mill (one tenth of one cent) per kWh increase in 2020 with a 10 percent RPS, and no impact in most years. When gas savings were considered, total electricity and gas bills were found to be as much as $13.2 billion lower with the 10 percent RPS (2000 dollars, 8 percent discount rate).

In April 2004, with the assistance of the Tellus Institute, we ran NEMS with no changes to the model, using all EIA assumptions. Because of the higher EIA gas price projections, the results showed that even an RPS of 20 percent by 2020 would reduce electricity and gas prices. Cumulative savings to electricity customers under a 20 percent RPS totaled $11 billion (net present value) by 2025, with cumulative savings to gas consumers of an additional $14 billion, for a $25 billion total savings (Figure 2).

EIA uses very pessimistic projections of renewable energy technology costs. The model also imposes artificial limits on renewable energy penetrations, and arbitrarily high costs at increasing levels of renewable penetration. We have therefore tested the result of using cost projections closer to (but still somewhat more conservative than) those used by the national energy labs, and penetration limits and cost estimates that based on utility studies and experience.

In our analysis, the consumer savings nearly doubled to $49 billion, with $35 billion in electricity savings, and $14 billion in gas savings (Figure 3).

The most important conclusion, however, is that whether you believe that EIA's pessimistic projections of renewable energy costs are more likely, or the national lab projections, the analyses show that a 20 percent RPS would save both electricity and natural gas consumers money in either case.

A 10 percent renewable standard would save money too, but not as much. In our analysis we found that with a 10 percent renewable standard by 2020, electricity and gas consumers would save almost $20 billion, compared to $49 billion under the 20 percent standard. Residential consumers could save an estimated $5.8 billion on their energy bills by the year 2025. Commercial and industrial customers would be the biggest winners saving a total of $13.8 billion between them.

III. RENEWABLE ENERGY CAN IMPROVE ENERGY AND NATIONAL SECURITY.

In response to rising gas prices, and the declining productivity of North American gas wells, imports of LNG are projected to increase by sixteen fold over the next 20 years. This trend—assuming that the LNG infrastructure can be expanded sufficiently—threatens to push America down the same troubled road of rising dependence on imported gas that we have followed for oil.

By reducing the demand for natural gas, renewable energy can reduce the pressure for increasing imports. Energy from the wind, sun, and heat of the earth are America's most abundant resources. They can never be depleted.

Renewable energy can increase energy and national security in other ways as well. Lacking long fuel supply chains, renewable energy facilities are not vulnerable to supply disruptions, and the price shocks they can cause. Because they do not use volatile fuel or produce dangerous wastes, renewable energy facilities (except large hydropower dams) do not present inviting targets for sabotage or attack.

IV. RENEWABLE ENERGY CAN CREATE JOBS AND INCOMES FOR AMERICAN FARMERS AND WORKERS.

Renewable energy can help improve our national economy. Investments in indigenous renewable energy sources keep money circulating and creating jobs in regional economies. Renewable energy can greatly benefit struggling rural economies, by providing new income for farmers and rural communities. It can also benefit manufacturing states, even those with less abundant renewable resources, by providing them the opportunity manufacture and assemble components for renewable energy facilities. And renewable energy can create enormous export opportunities, given the growing commitment of the rest of the world to expand use of renewable energy.

With the assistance of consultant Marshall Goldberg, we ran the results of our NEMS runs through the IMPLAN input-output model of the U.S. economy, and found that a 20 percent RPS by 2020 would produce:

- More than 355,000 new jobs in manufacturing, construction, operation, maintenance, and other industries, nearly twice as many jobs as producing the same amount of electricity from fossil fuels—a net increase of nearly 157,500 jobs by 202
- An additional $8.2 billion in income and $10.2 billion in gross domestic product in the United States' economy.
- $72.6 billion in new capital investment
- $15 billion in payments to farmers and rural areas for producing biomass energy
- $5 billion in new property tax revenues for local communities
- $1.2 billion in wind power land lease payments to farmers, ranchers, and rural landowners.

Renewable energy sources are available in every state. They are much more broadly dispersed than our fossil fuel resources. Under a national renewable electricity standard, some states will obviously reap more benefits than others, but virtually every state should be able to increase its use of its own resources, build its local economy, and be less dependent on importing energy from other states and countries.

Recent analysis by the Renewable Energy Policy Project (REPP) found that the economic benefits are not localized to the states that have the most renewable energy resources. REPP examined the capability of the manufacturing industries in each state to supply components for wind and solar facilities. They found.that the top 20 states for wind component manufacturing would be California Ohio, Texas, Michigan, Illinois, Indiana, Pennsylvania, Wisconsin, New York, South Carolina, North Carolina, Tennessee, Alabama, Georgia, Virginia, Florida, Missouri, Massachusetts, Minnesota, and New Jersey. The top twenty states for solar manufacturing would be California, Texas, Arizona, New York, Pennsylvania, Massachusetts, Illinois, Ohio, Oregon, Florida, North Carolina, New Jersey, Colorado, Washington, Virginia, Indiana, Michigan, Minnesota, New Mexico, and Missouri.

V. RENEWABLE ENERGY CAN IMPROVE OUR ENVIRONMENT AND REDUCE FINANCIAL RISKS TO UTILITIES.

Electricity use has a significant impact on the environment. Electricity accounts for less than three percent of US economic activity. Yet, it accounts for more than 26 percent of smog-producing nitrogen oxide emissions, one-third of toxic mercury emissions, some 40 percent of climate-changing carbon dioxide emissions, and 64 percent of acid rain-causing sulfur-dioxide emissions. Renewable energy can reduce these emissions, thereby reducing the cost of hitting any emission caps.

Our analysis found that a 20 percent renewable electricity standard could reduce the projected growth in power plant carbon dioxide emission by more than 50 percent by 2025. Because the 20 percent renewable standard would save money for electricity and gas consumers, these are free (or negative cost) carbon reductions. They represent free insurance against the risk that power plants—the largest source of carbon emissions in the U.S. economy—may have to reduce those emissions someday.

Even most utility executives believe that they will have to implement carbon reductions eventually. Yet in response to the increase in natural gas prices, more than 100 new coal-fired power plants have been proposed. These plants will expose their owners, power purchasers, and customers to the risk of future price increases that could be avoided by investing in renewable energy instead. Indeed, under an economy-wide cap-and-trade approach, the carbon reductions from increasing renewable energy will save money for every sector of the economy.

Whether you think that risk of climate change is great or small, increasing renewable energy can reduce the risk of responding to it. And renewable energy reduces emissions of sulfur dioxide, nitrogen oxides, particulates, and mercury, reducing the cost of complying with emission reduction requirements for these pollutants as well.

VI. WHY A RENEWABLE PORTFOLIO STANDARD?

If increasing renewable energy would save consumers money, why aren't utilities switching to renewables? In fact, a few are beginning to invest in wind energy as a purely economic proposition. Others are financing renewable energy development by allowing customers to volunteer to pay a little more for renewable energy. But the reality is that about three-quarters of the renewable energy developed in recent years, and projected to be developed in the next decade, is the result of state renewable electricity standards.

Renewable energy has made great strides in reducing costs, thanks to research and development and growth in domestic and global capacity. The cost for wind and solar electricity has come down by 80-90 percent over the past two decades. However, like all emerging technologies, renewable resources face commercialization barriers. They must compete at a disadvantage against the entrenched industries. They lack infrastructure, and their costs are high because of a lack of economies of scale.

Renewable energy technologies face distortions in tax and spending policy. Studies have established that federal and state tax and spending policies tend to favor fossil-fuel technologies over renewable energy. A 2003 study by the Renewable Energy Policy Project showed that between 1943 and 1999, the nuclear industry received over $145 billion in federal subsidies vs. $4.4 billion for solar energy and $1.3 billion for wind energy. Another study by the non-partisan Congressional Joint Committee on Taxation projected that the oil and gas industries would receive an estimated $11 billion in tax incentives for exploration and production activities between 1999 and 2003. In addition to these subsidies, conventional generating technologies enjoy a lower tax burden. Fuel expenditures can be deducted from taxable income, but few renewable technologies benefit from this deduction, since most do not use market-supplied fuels. Income and property taxes are higher for renewable energy, which require large capital investments but have low fuel and operating expenses.

Many of the benefits of renewable resources, such as reduced pollution and greater energy diversity, are not reflected in market prices, thus eliminating much of the incentive for consumers to switch to these technologies. Other important market barriers to renewable resources include: lack of information by customers, institutional barriers, the small size and high transaction costs of many renewable technologies, high financing costs, split incentives among those who make energy decisions and those who bear the costs, and high transmission costs.

Some have called for future support of renewable energy through "green marketing," selling portfolios with a higher renewable energy content (and lower emissions) to customers who are willing to pay more for them. We strongly support green marketing as a means to increase the use of renewable energy and reduce the environmental impacts of energy use. Surveys show that many customers are willing to pay more for renewable energy, and pilot programs have shown promising, but not overwhelming results.

Green marketing is not a substitute for sound public policy, however. There are many barriers to customers switching to green power, not the least of which is inertia. More than fifteen years after deregulation of long-distance telephone service, half of telephone customers still had not switched suppliers, even though they could get much lower prices by doing so. A 2003 study by the National Renewable Energy Laboratory projects that in an optimistic scenario, green marketing could increase the percentage of renewable energy in our electricity mix from about 2 percent today to only about 3 percent in ten years.

With green electricity, the benefits of any individual customer's choice accrue to everyone, not the individual customer. Green customers gets the same undifferentiated electrons and breathe the same air as their neighbors choosing to buy power from cheap, dirty coal plants, creating a strong incentive for people to be "free riders" rather than pay higher costs for renewable resources. People recognize this public benefits aspect of green power. While they consistently say they are willing to pay more for electricity that is cleaner and includes more renewable energy, they overwhelmingly prefer that everyone pay for these benefits to relying on volunteers. A deliberative poll by Texas utilities found that 79 percent of participants favored everyone paying a small amount to support renewable energy, versus 17 percent favoring relying only on green marketing.

Fortunately, 18 states plus the District of Columbia have enacted renewable portfolio standards. The RPS is a market-based mechanism that requires utilities to gradually increase the portion of electricity produced from renewable resources such as wind, biomass, geothermal, and solar energy. It is akin to building codes, or efficiency standards for buildings, appliances, or vehicles, and is designed to integrate renewable resources into the marketplace in the most cost-effective fashion.

By using tradable "renewable energy credits" to achieve compliance at the lowest cost, the RPS would function much like the Clean Air Act credit-trading system, which permits lower-cost, market-based compliance with air pollution regulations. Electricity suppliers can generate renewable electricity themselves, purchase renewable electricity and credits from generators, or buy credits in a secondary trading market. This market-based approach creates competition among renewable generators, providing the greatest amount of clean power for the lowest price, and creates an ongoing incentive to drive down costs.

The states have proven that renewable electricity standards are popular and can be effective. We project that state RPS laws and regulations will provide support for more than 25,550 megawatts (MW) of new renewable power by 2017—an increase of 192 percent over total 1997 US levels (excluding hydro). This represents enough clean power to meet the electricity needs of 17.2 million typical homes. We estimate that by 2017 these state RPS programs will also reduce carbon dioxide emissions—the heat-trapping gas primarily responsible for global warming—by 65.2 million metric tons annually. This is equivalent to taking 9.7 million cars off the road or planting more than 15.6 million acres of trees—areas approximately the size of West Virginia.

As encouraging as these state developments have been, they are not enough to capture renewable energy's potential benefits to the national economy. Under a 10 percent RPS, we would have approximately 100,000 MW of non-hydro renewables. Under a 20 percent RPS, we would have nearly 200,000 MW of non-hydro renewables—and save consumers money.

Many people forget that we have given voluntary measures and incentives more than a fair try. The Energy Policy Act of 1992 called for increasing our renewable energy supplies by 75 percent, and enacted the production tax credit. Unfortunately, these measures have not been successful at stimulating more than very limited renewable energy development outside of states that have implemented renewable portfolio standard. It is time for a national minimum standard, on which states and volunteer efforts can continue to build.

Energy production creates national economic and environmental problems that need national solutions. A national renewables standard would establish uniform rules for the most efficient trading of renewable energy credits. This uniformity would reduce renewable energy technology costs by creating economies of scale and a national market for the most cost-effective resources.

The RPS enjoys widespread bipartisan political support. In 2002, 143 members of the House, including 21 Republicans called for including a Renewable Portfolio Standard in an energy bill. In a September, 2003 letter to the conferees, 53 Senators supported including a strong RPS in the energy bill conference report. The U.S. Senate has twice passed a RPS and the majority of Senators on the energy bill conference supported the Bingaman RPS amendment.

The RPS is the surest mechanism for securing the public benefits of renewable energy sources and for reducing their cost to enable them to become more competitive. It is a market mechanism, setting a uniform standard and allowing companies to determine the best way to meet it. The market picks the winning and losing technologies and projects, not administrators. The RPS will reduce renewable energy costs by:

- Providing a revenue stream that will enable manufacturers and developers to obtain project financing at a reasonable cost and make investments in expanding capacity to meet an expanding renewable energy market.
- Allowing economies of scale in manufacturing, installation, operation and maintenance of renewable energy facilities.
- Promoting vigorous competition among renewable energy developers and technologies to meet the standard at the lowest cost.
- Inducing development of renewables in the regions of the country where they are the most cost-effective, while avoiding expensive long-distance transmission, by allowing national renewable energy credit trading.
- Reducing transaction costs, by enabling suppliers to buy credits and avoid having to negotiate many small contracts with individual renewable energy projects.

Some people have asked why hydropower is not eligible to earn renewable energy credits in most RPS proposals. Hydro is that it is a mature resource and technology. In most cases, it is already highly competitive. It will not benefit appreciably from the cost-reduction mechanisms outlined above, and an RPS that included hydro would likely produce small, if any, increases in hydro generation. Additionally, new dams are unlikely to be built and are environmentally questionable. Nevertheless, we have supported RPS' that include incremental hydro generation from existing dams. Now that a Low Impact Hydro Institute (LIHI) certification process with broad stakeholder support is operating, we recommend that the definition of incremental hydro refer to incremental generation at LIHI-certified facilities.

Some people have also expressed concerns about the variable output of renewable sources like solar and wind, and believe that an RPS would affect the reliability of our energy system. However, the electric system is designed to handle unexpected swings in energy supply and demand, such as significant changes in consumer demand or even the failure of a large power plant or transmission line. Solar energy is also generally most plentiful when it is most needed—when air-conditioners are causing high electricity demand. There are several areas in Europe, including parts of Spain, Germany, and Denmark, where wind power already supplies over 20 percent of the electricity with no adverse effects on the reliability of the system. In addition, several important renewable energy sources, such as geothermal, biomass, and landfill gas systems can operate around the clock. Studies by the EIA and the Union of Concerned Scientists show these non-intermittent, dispatchable renewable energy plants would generate about half of the nation's non-hydro renewable energy under a 10 percent RPS in 2020. Renewable energy can increase the reliability of the overall system, by diversifying our resource base and using supplies that are not vulnerable to periodic shortages or other supply interruptions.

A summary of studies presented at the European Wind Energy Conference in June, 2003 indicate that the impacts and costs for large scale wind generation on the power grid are relatively low at penetration rates that expected over the next several years. For example, one 2003 study by PacifiCorp estimated that the additional costs of integrating 2000 MW of renewables—nearly 20 percent of its system capacity—was between 0.5 and 0.6 cents per KWh. In fact, the PacifiCorp 2003 least cost plan included 1400 MW of wind capacity.

VII. ADDITIONAL POLICIES ARE NEEDED.

A number of complementary policies should be enacted to reduce market barriers to renewable energy development:

- Extending production tax credits of 1.8 cents per kWh and expanding them to cover all clean, renewable resources (excluding hydropower)
- Adopting national net metering standards, allowing consumers who generate their own electricity with renewable energy systems to feed surplus electricity back to the grid and spin their meters backward, thus receiving retail prices for their surplus power production
- Increasing spending on renewable energy research and development

The deployment of all these policy solutions will be required to truly level the playing field for renewable energy. It is especially important that the Production Tax Credit be extended for a period of at least five to ten years, to provide predictability and price stability in the renewables industry, and avoid the costly boom-bust cycles created by the recent history of short-term extensions.

The PTC should be extended for all renewable energy technologies. The Administration's recent budget assumed that the geothermal energy credit included in the last extension would now be dropped. Geothermal can play an important near-term role in reducing the demand for gas, especially in the Western states that have experienced significant price volatility in recent years.

Net metering is essential for customers who invest their own money in renewable energy in their buildings get fairly compensated for excess electricity they produce. Net metering is not sufficient to promote renewable energy development, but it is essential to promote the use of clean, distributed resources like solar energy.

Additionally, we urge Congress to pass a suite of policies to improve energy efficiency, including both demand-side efficiency and supply-side efficiency, such as providing incentives for combined heat and power plants. The LBL study and many others have found that energy efficiency is the least expensive way to reduce natural gas demand and natural gas prices.

VIII. COMMENTS ON THE PROVISIONS OF THE DISCUSSION DRAFT

In our view, the provisions of the Discussion Draft fail to provide the long-term incentives to increase the deployment of renewable energy. We have outlined numerous studies that demonstrate that increasing the deployment of renewables will yield substantial benefits to consumers, create jobs and help clear our air. Yet without any demand side incentive such as the Renewable Portfolio Standard that we have outlined in our testimony, we fear this effort to increase the use of renewable energy falls far short of the potential. For example, we believe that production tax credits for renewables should be extended at least ten years and apply to as broad a spectrum of renewables as possible.

Similarly, we are gratified by the net metering provisions in the Draft, but we suggest that these provisions be mandatory—not merely suggested changes. We have uniformity governing the use of such things as phones throughout the country. We recommend similar uniformity apply to such things as solar panels and other forms of distributed generation.

Finally, in our view, the level and variety of subsidies provided for oil, gas, "clean coal" and nuclear energy appears grossly out of balance with the incentives for renewables, considering the costs and the benefits. We believe that studies demonstrate that the costs for renewable energy are low and the benefits are both long term and substantial. We ask that the Committee consider dramatically increasing the variety of demand-side incentives for renewables to present a more balanced energy policy.

IX. CONCLUSION

Survey after survey has shown that Americans want cleaner and renewable energy sources, and that they are willing to pay more for them. A survey conducted in 2002 by Mellman Associates found that when presented with arguments for and against a 20 percent RPS requirement, 70 percent of voters support an RPS, while only 21 percent oppose it.

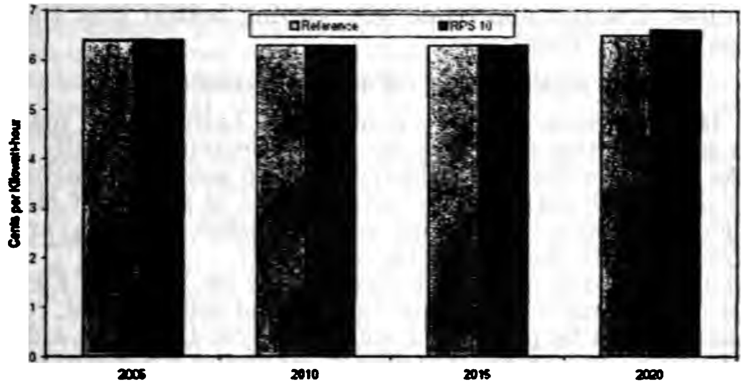
The combination of EIA and UCS studies demonstrate that with appropriate policies, renewable energy technologies can provide Americans with the clean and reliable electricity they desire, while also saving them money, contributing to our nation's energy security and achieving significant reductions in harmful emissions.

The net metering and renewable energy production incentive provisions included in the current draft bill before the committee are laudable and deserving of support. But by themselves, these provisions will not get the job done. A strong, market-friendly renewable energy standard is required to realize the full potential of America's renewable energy resources.

For all of these reasons, we respectfully urge that as the Committee moves forward with its development of national energy legislation, you support inclusion of a renewable portfolio standard.

Thank you.

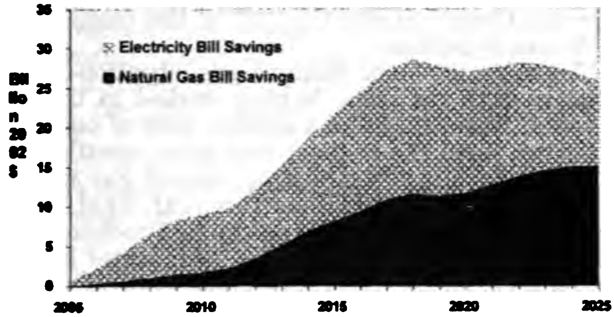
Figure 1. Retail Electricity Prices in the EIA Reference and RPS 10 Cases, 2002



Sources: National Energy Modeling System Runs [illegible]

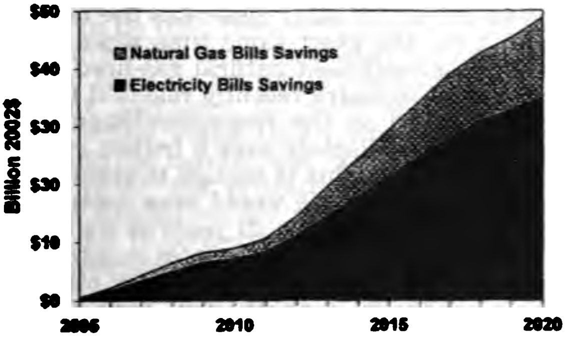
Energy Information Administration, *Impacts of a 10-Percent Renewable Portfolio Standard*, SR/OIAF/2002-03, February 2002. Figure 5, p 20

Figure 2. Cumulative Natural Gas and Electricity Bill Savings* (20% by 2020 RES)



*Net present value using a 7% real discount rate.

Figure 3
Cumulative Natural Gas and Electricity Bill Savings (20 percent by 2020 RES)ᵃ



ᵃExcludes transportation.

Mr. HALL. I thank you. Mr. Resch, President of the Solar Energy Industries Association, Senior VP of the Natural Gas Supply Association, among other bits of background. Thank you; we will yield 5 minutes. I would appreciate you staying within that time, as close as you can. Thank you.

STATEMENT OF RHONE RESCH

Mr. RESCH. Thank you very much, Mr. Chairman and members of the subcommittee for giving me the opportunity to testify today. It looks like I am the only industry rep who actually brought their power plant with them to the hearing. This is a product made in Michigan, supporting our troops in Afghanistan and Iraq, and put on rooftops, really, throughout the world.

I would like to focus my comments today on 3 points. First, we have a natural gas crisis in this country, and solar, a solid, reliable technology, must be part of the solution. Second, solar is a domestic, reliable energy source, capable of improving our security while creating thousands of new jobs. And finally, we must commit to long-term policies that remove barriers and create incentives, or this growing industry will move entirely overseas.

Before I start, I would like to point out that on this map here, you can see the United States has the greatest solar resources of any country in the world. From Texas to Maine, all 50 States have the potential to use solar technologies. In fact, we have more solar resources in the United States than all of the fossil fuel energy in the United States combined.

I would like to address the natural gas situation first because I have familiarity with the issue having worked in the industry for the last 5 years. Natural gas is a critical part of our energy infrastructure, but we have the highest and most volatile prices in the world. Compared to just 5 years ago, natural gas will cost American consumers an extra $100 billion this year. That is a significant drag on our economy. My industry produces 3 technologies that can offset natural gas demand. Nationwide, solar water heaters operate directly at the point of use, reducing home natural gas demand by as much as two-thirds. Concentrating solar power provides centralized bulk power during peak power-demand period, displacing the need for natural gas peaking units, and foldable tanks, of PV, the solar panels we think of, convert sunlight to electricity and directly displace natural gas used for electricity.

What is critical to point out is that solar generates the most electricity from 10 a.m. to 5 p.m., the exact same time when utilities experience peak loads and use inefficient natural gas-fired peaking units to meet demand. The PV industry recently released the Road Map back in October, and based on the recommendations in the study, the PV industry alone can displace over 6 trillion cubic feet of natural gas in the next 20 years. This is enough to eliminate our need for new LNG within 10 years. This would save consumers in excess of 64 billion over the course of those 20 years as well.

This brings me to my second point: solar creates domestic jobs. Solar PV creates 32 jobs per megawatt, more than any other form of energy. As of today, the industry is worth more than $7 billion per year, globally, and we are growing at almost 40 percent. Companies like General Electric, Sharp, Sanyo, Shell, BP, and Kyocera are all manufacturing solar panels. The bad news is that the majority of this growth is occurring overseas. Japan and Germany in particular recognize the economic value of developing the industry and have enacted policies that create thriving markets. The U.S., once the unquestioned leader, manufactures less than 10 percent of the market today. Japan and Germany, by the way, have the solar equivalent potential of Ohio in that map—not taking anything away from Ohio, Congressman.

The good news is that the U.S. can still choose to lead the market. The Road Map illustrates how we can generate more than $34 billion in new investments and more than 40,000 new American jobs in the next 10 years. Of course, I should mention that as the center of energy and electronic industries, Texas is in the position to attract a significant portion of these new jobs. According to the Bureau of Labor Statistics, the oil and gas industry has downsized some 14,000 jobs in Texas over the past 10 years. The PV industry could create over 5,500 new, hi-tech jobs in Texas alone in the next 10.

I would like to focus here on 2 major areas where we need to improve the energy bill. Interconnection standards: we need to level the playing field for all energy technologies by enacting national interconnection standards. In many states, solar, as well as fuel cells and other distributed technologies, cannot participate in the electricity market. The IEE, NARUC, FERC have developed a streamlined process for connecting to the grid that addresses all of the technical issues. I urge the committee to adopt the proposal from Senator Cantwell and Representative Inslee which requires states to adapt the IEE standards and the FERC procedures to their own needs.

Of course, with or without barriers, Germany and Japan are cornering the market because they have created incentives, and U.S. has not. Remember, in the United States today there are no Federal incentives to put solar on your home. Section 13.01 would begin to address this with a 15-percent residential tax credit, but we have 3 suggestions to make this credit more effectively. First, a 1-year credit does as much harm as good, and even 3 years is an uncertain basis on which to make $100 million investment decision. We urge the credits to be expanded to a minimum of 5 years. Second, the credit should be sized to jump start the industry and allow solar to be a competitive choice, nationwide, for all consumers. To do this, the credit should be $3 per watt for home systems and $2 for larger systems. To encourage the broadest and most cost-effective market, business should also be allowed to use this credit. And third, the credit should be—each year. A 5-percent annual decline would spur continuous cost reductions, move customers into the market, and save the government money.

Titles 13.02, the production tax credit for concentration solar power, is singled out for restriction, forbidding dual-use with section 48, the 10-percent business investment credit. If this dual restriction remains, the credit is effectively worthless. Developers will not take advantage of the production tax credit, simply because they will favor the investment credit; they are a capital-intensive industry. If this credit is to result in any development of this resource, the restriction must be removed.

You are crafting an energy bill for the 21st century. Your leadership can and must help move us past subsidizing 19th century technologies and create markets for advanced domestic sources like solar. The next 10 years are critical for worldwide solar power development, for our Nation's energy security, and for our manufacturing growth. Again, if these policies are realized, the solar energy industry will create more than 60,000 new U.S. jobs, over $32 billion in new investment in all 50 States over the next 10 years, and that solar energy, as a market alternative to natural gas, will save consumers $64 billion over the next 20 years.

This concludes my testimony. Thank you, and I look forward to your questions.

[The prepared statement of Rhone Resch follows:]

PREPARED STATEMENT OF RHONE RESCH, PRESIDENT, SOLAR ENERGY INDUSTRIES ASSOCIATION

Thank you, Mr. Chairman and members of the Committee, for giving me the opportunity to testify today. My name is Rhone Resch, and I am president of the Solar Energy Industries Association (SEIA). SEIA is the national trade association of the solar industry, representing all solar technologies and more than 20,000 employees in all sectors from manufacturing to installation. We are located in Washington, but work closely with state and regional chapters throughout the U.S.

CURRENT STATUS OF SOLAR ENERGY

The solar industry is comprised of three technologies, all of which are experiencing substantial global growth.

Photovoltaics (PV) are a domestically developed technology that uses silicon semiconductors to covert sunlight directly to electricity. PV cells are used both on and off grid to provide high-value retail electricity. This industry has a 40% annual global growth rate, driven by booming markets in Japan and Germany. In 1996, the global industry made 100 megawatts of panels—less than a billion dollars' worth. In 2004, almost 1100 megawatts came out of the factory doors, worth at least $6 billion. This growth has not gone unnoticed, and in the last few years some of the worlds largest electronics and energy companies have entered into the PV industry, including, among others GE, Sharp, Sanyo, Shell, BP, and Kyocera.

We also represent the solar water heating industry. Solar water heating uses panels that gather energy from the sun to heat the water in your hot water tank or radiant heating system. Simple installations can reduce home natural gas usage by up to 70%—even in freezing climates. Israel, for example, derives thousands of megawatt-hours of energy from these rooftop devices.

Our largest-scale technology is Concentrating Solar Power (CSP) These Southwestern power plants consist of large focusing mirrors, which provide heat for steam generators in a conventional power plant. Natural gas hybridization or thermal storage can make these into on-demand, dispatchable power plants. There are more than 350 megawatts of this technology operating today, 100 plus of which were purchased by Florida Power and Light just two weeks ago.

These technologies all have their own attributes and virtues, but I would like to take them as a whole, and focus my discussion today around three primary points:

1. We have a natural gas crisis and solar must be part of the solution
2. Solar energy is domestic, reliable and secure
3. The true value of solar energy is many times greater than its cost

NATURAL GAS DEMAND AND THE ROLE OF SOLAR ENERGY

All of you who opened up your January natural gas bill two weeks ago have felt the impact of the natural gas crisis. Although the U.S. produces more natural gas than any other country outside of Russia, we still have the highest and most volatile prices in the world. The current nationwide average is $7.25/Mcf , with peak prices exceeding $30/Mcf last month in New York and New England. We have seen two back-to-back days in these markets where the price increased by more than 100%. Natural gas is a critical part of our energy infrastructure and will remain so for a long time, but these high prices and significant volatility are having a significant economic impact on our country that we must address. Federal Reserve Board Chairman Alan Greenspan has repeatedly cited high energy costs as a major drag on the economy. Compared to 5 years ago, natural gas is costing us an extra $100 billion per year.

No one technology can solve this problem—but solar is better suited than most to displace natural gas demand and relieve some of the tightness in the market. During peak load periods, utilities use natural gas-fired peaking or intermediate plants to provide the additional electricity needed by consumers. Most of these plants are very inefficient, requiring 3-4 times more natural gas per kWh than base-load plants. The peak load periods that require the use of these plants generally occur from 10 AM until 5 PM, with the greatest usage coming on hot days. Solar electricity generation directly correlates directly with this peak (see attachment 1). This means that increased use of solar can directly displace one of the most inefficient uses of natural gas.

We recently unveiled a report entitled, "Our Solar Power Future: The U.S. Photovoltaic Industry Roadmap for 2030 and beyond". According to this report, photovoltaics alone can displace over 6 trillion cubic feet of natural gas in the next 20 years—more than will be produced in the Gulf of Mexico this year. By way of further context, increased use of photovoltaics could eliminate the equivalent of our need for new imported LNG within 10 years (see attachment 2). Practically speaking, this is a small amount, but it will have a meaningful effect. Since so much of the trading price depends on movements in this peaking spot market, the overall impact could be significant—we estimate that removing this demand will save nearly $64 billion.

A SECURE, DEPENDABLE ENERGY SUPPLY

Lowering the rate of energy imports ties directly into our second benefit of solar energy, which is to strengthen America's energy security by providing energy that is domestically controlled, affordable and reliable.

Let me first emphasize that solar energy is 100% domestic, and that the U.S. has the best resources in the industrialized world. This continuous, free source comes down nationwide, in every community and congressional district. A solar system in New York generates 80% of the output of one in LA (see attachment 3)—and that retail electricity would have a nearly equivalent value in that more expensive state. Using only correctly oriented, unshaded, available roofs, we could produce 500,000 megawatts of solar energy without siting a single power plant.

Security also comes in the form of economic stability. Energy costs represent a higher portion of our monthly expenses than ever before, and each month they continue to rise. Solar is a reliable source of electricity with no threat of interruption, shortage, or price swings. Once a system is installed, there are no fuel costs and minimal maintenance costs. You do not have to compete with coal or gas-fired wholesale generation at 2 or 4 cents per kWh, but rather with the 10 or 14 cents you pay at the meter. When you put a system in today, you know what your electric bills will be in 2030—no matter what happens to OPEC, no matter how much LNG capacity is built, no matter what happens to the grid, or to climate policy. This has particular import for the growing percentage of our aging population living on fixed incomes.

Finally, a reliable energy source is a secure energy source. Although utilities do a great job maintaining transmission and distribution systems, problems do occur—we experience expensive blackouts every year. By directly displacing peak demand, solar reduces wear and tear on the grid, increases reliability, and decreases requirements for costly infrastructure. Sitting atop your roof, and providing electricity directly into your home, solar is a smart, distributed resource that does not increase our vulnerability to attack or disaster at the limited number of crucial grid points. Considering that power outages and disturbances cost the U.S. economy $119 billion per year, there is a strong case for secure, dependable and distributed sources of energy that bypass single large points of failure.

ECONOMIC BENEFITS OF SOLAR

As of today, the global PV industry is worth $6 billion a year, and growing at 40% annually. Unfortunately, the vast majority of growth in this domestically invented industry is now occurring overseas. Formerly the unquestioned leader in PV manufacturing, the U.S. lost its lead in 1997, and now represents only 10% of production. Meanwhile, through the creation of strong incentives, Germany and Japan have cultivated thriving industries, supporting tens of thousands of quality jobs in engineering, manufacturing and construction. The good news is that the global market is growing rapidly and with support from the federal government, the U.S. can still create a solar market that dominates the rest of the world.

If the U.S. were to experience the growth seen in recent years in Japan and Germany, or even in individual US states, the economic rewards would be great. Every megawatt of solar installed currently supports approximately 32 jobs—24 in high-tech manufacturing, and 8 in local design, installation and service—created right where the systems are installed. Communities that choose solar—and most in the US could—create jobs at home, rather than having their purchases create them elsewhere.

The Renewable Energy Policy Project recently released a study in which they quantify the economic benefits of the PV Roadmap state-by-state. They looked at the PV panel—the steel, glass, wires and silicon that make it up—and examined where those parts could be manufactured and how many people each would employ. They found that with appropriate policies, the U.S. industry would create more than 40,000 new jobs, in all 50 states, over the next 10 years—and 230,00 in the next 20 (see attachment 4).

The solar energy industry is growing rapidly, and the U.S. has a choice: Do we seize this opportunity to secure tens of thousands of domestic jobs and send billions of dollars to US factories, or do we sit on our hands while the Germans and Japanese exploit the next great high-tech industry?

THE CHALLENGE FOR THE U.S.

In the early 1980s, the U.S. built a commanding advantage in the solar industry thanks to innovation and pioneering research. In the past eight years, we have lost this edge. Today, the U.S. has a market share near 10%, down from 41% in 1997. Installations in Germany increased by 170% in 2004, while U.S. installations increased by just 25%. Germany certainly does not come to mind as the country one would go to for sunny weather. Yet the governments of Germany and Japan are strongly committed to developing their commercial markets. There is a familiar historical parallel here with other high-tech industries—and we must consider that in this case our energy security is at stake as well as our economic security.

If the U.S. is to share in this continuing boom, we must have a long-term, sustainable policy—one that promotes economic development, protects our environment, and strengthens America's energy security.

Remove Market Barriers

The first problem we need to solve is a procedural barrier that keeps solar energy from accessing the electricity market. As it stands, it is effectively impossible in many states to put a solar electric system on your house. The interconnection standards are either too vague or too much oriented to big, central station power plants. A typical home solar system—approximately 2 kilowatts—produces the equivalent of two microwaves oven's worth of electricity at any one point in time. If you're not home to use it, it will feed back into the grid and be sold at retail price to the next "downstream" customer.

The IEEE and the UL have developed standards for how a homeowner can connect their solar systems while protecting other customers, the grid, and the workers that support it. Many states—New Jersey, New York, California, the PJM, and many others, have adapted those into a set of procedures that make sense. The National Association of Regulatory Utility Commissioners and the FERC have come out with very similar models.

Nevertheless, there are still many utilities out there that will treat you as a major generator of electricity, charging you $10,000 to conduct a study about how your 2 kW will affect the grid. Some, more directly, will deny you a connection outright. We have to comply with dozens of different standards nationwide. Solar prices—and those of all distributed generation, from fuel cells to small wind turbines—are artificially inflated by this patchwork, which requires the industry to custom design, test and certify a system for each new state or utility requirement. It is as if you needed a 50-state adapter pack with each new telephone. This regulatory redundancy is choking the industry, and we need a single, nationwide procedure.

We also face a problem of public awareness and trust that we could address at very little cost. One of the best things the government could do to increase public knowledge of, and trust in, quality solar devices, would be to open the Energy Star performance and quality certification program to solar heating. For very little cost, this would increase the public's recognition of solar water heating and create visibility and distribution channels would not exist otherwise.

Of course, at the end of the day, Germany and Japan are cornering the market because they have created incentives and the U.S. has not—remember, in the U.S. today there are no federal incentives to build solar systems on your home. The current tax code gives a 10% credit for commercial solar, and HR6 as it stands would create a 15% residential credit. When we saw that credit, it spurred us to examine the industry, to look at other models, and to see what would really be needed to catch up to the rest of the world.

Create Tax Incentives that Jumpstart the Market

We found that there are several principles that must exist for market incentives to result in self-sustaining markets and economic growth.

First, the incentive should be authorized for at least five years at a time, so that companies can confidently make investments in expanded capacity. Credits that turn on and off every year don't do anyone any favors.

Second, the incentive should pay for half—or less—of a system, so that the customer has to make their money back through years of high-quality performance, and has an incentive to purchase modern, warranteed, reputable equipment.

Third, the incentive should *decline every year, and eventually expire.* Our costs are down by more than 95% since the late 90s, and we expect them to continue to drop by 5% or more annually for the foreseeable future; the credit should encourage, rather than obstruct, this progress. We also want to avoid long-term dependency, so the incentive should be designed to expire. The other effect we've seen in other nations that have successfully used this model is that a declining incentive moves sales; people who were "on the fence" about their decision to purchase, go into the market immediately, jumpstarting production volumes and further decreasing costs.

For photovoltaics, we are calling for a tax incentive of $3.00/Watt for systems below 10 kW, and $2.00/Watt above that, decreasing at 5% per year. For solar hot water, we would request a smaller incentive—$15.00 per thousand Btu/day performance rating, declining by $1 per year.

Finally, for concentrating solar power plants, which would not qualify for either of these credits, we ask that they be allowed to use the wind production tax credit, without additional restrictions.

We have calculated that these incentives would make solar the economic choice for millions of Americans in every part of the country, even as it declined in value from year to year. The US would once again become the global leader in the next great high-tech industry—solar energy. To give you an idea of future growth:

- Ten years from now, the solar energy industry will create more than 60,000 new US jobs, and over $34 billion in new investments, in all 50 states.
- Solar energy will displace 6.3 trillion cubic feet of natural gas over 20 years, saving consumers $64 billion.
- By 2025, solar will provide half of all new annual electricity generation.
- By 2030, installed solar output capacity will equal the equivalent of more than 40 nuclear power plants, supporting 260,000 high quality domestic jobs in manufacturing, engineering, and construction.

We face a decision point. The next 10 years are critical, for worldwide solar power development, for our nation's energy security, and for our manufacturing growth.

CONCLUSION: FULFILLING THE PRESIDENT'S PRIORITIES

In conclusion, I would note that the Administration has identified four priorities for the US economy—security, opportunity, innovation, and ownership. I would submit that our technologies are uniquely suited to advance all of these objectives.

We contribute to security by reducing the degree to which we depend on foreign governments to drive our economy.

We provide opportunity by generating thousands of jobs nationwide, in an industry that I am confident will be one of the world's fastest growing for years to come.

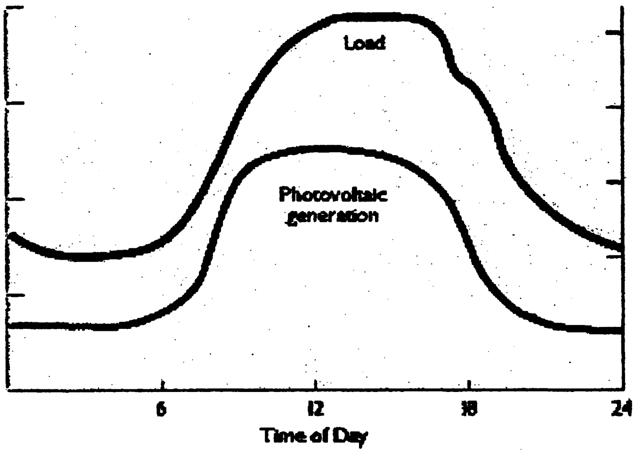
We produce—and demand—innovation, by pushing performance in a 21st century technology even as we scale up to meet today's demands.

Almost uniquely, we provide ownership. With a solar system, you have the freedom to own your electricity, rather than renting it at whatever price a utility or marketer sets.

I urge the committee to advance our national interest and our economic future by advancing aggressive and carefully designed policies for the promotion of solar energy. We are ready at any time to provide any assistance you may require.

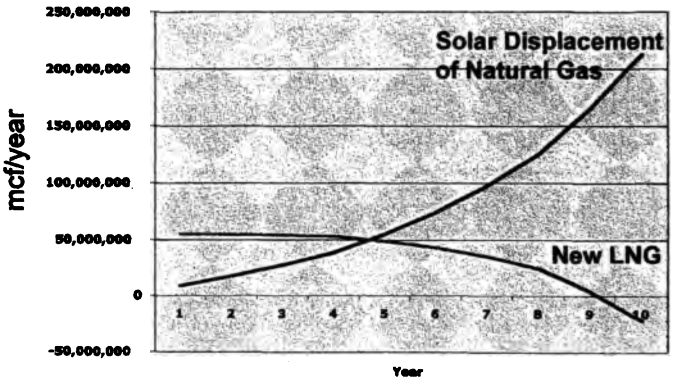
This concludes my testimony. Thank you.

Attachment 1 - Solar Addresses Peak Load



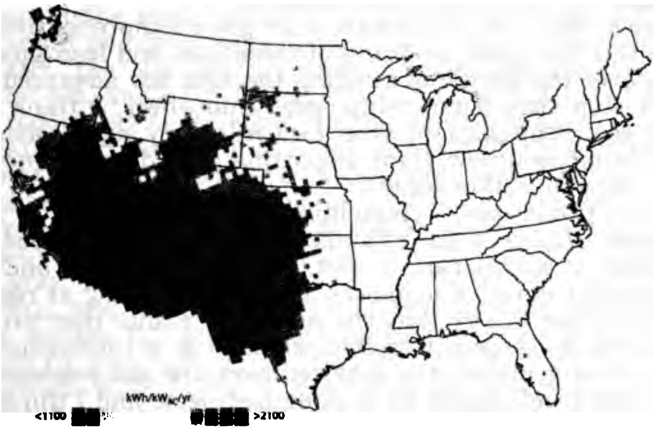
http://www.nrel.gov/ncpv/documents/pv_util.html

Attachment 2 – Solar Could Significantly Displace Gas Demand



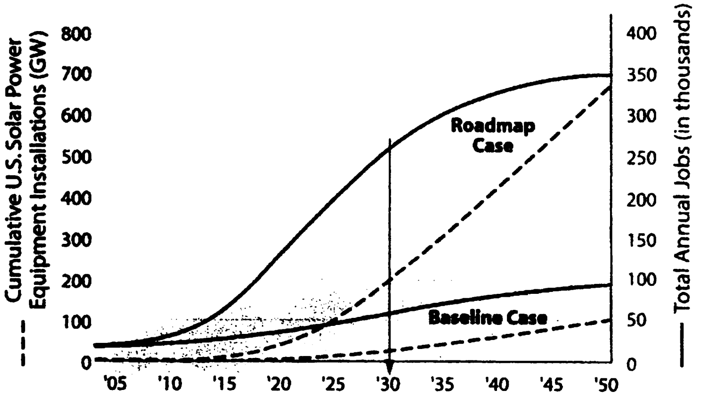
Source: EIA AEO 2005, PV Roadmap Projections

Attachment 3 – Superior Solar Resources Serve the Whole Nation



Source: PV Roadmap

Attachment 4 – Sustained Policies Develop Thousands of Jobs



Mr. HALL. All right. Thank you very much. Excuse me. I will start with Mr. Kane, and then ask you a pretty simple one you can bounce right out of the park. When do you think the next nuclear plant might be built in the United States?

Mr. KANE. Well, Mr. Chairman, if we get a comprehensive energy bill done this year and the menu of incentives and loan guarantees to get us over the hurdle of building the first few advanced plants, and then stop that partnership, goes into effect, I think we are going to see companies moving forwards very aggressively, and probably bringing a new plant or putting an order for a new plant in before the end of this decade.

Mr. HALL. Could the——[inaudible]

Mr. KANE. No, sir, I don't think there is legislation needed. The current fleet of plants can, in fact, produce hydrogen, and that is something that many of members are indeed looking at right now. But I would like to say that the advanced plants that are in the research and development section of the H.R. 6 conference report, the generation 4 plants, the high-temperature gas reactors, would be particularly well suited for making hydrogen, and I think the investment there, in the future, is really well place.

Mr. HALL. Some have indicated that they think it is questionable as to whether the United States still has engineering or construction expertise to build new-generation nuclear plants. The fear is that it has gone overseas. I guess the question is does the necessary skill/work force exist, still, to support that type construction with proper backing?

Mr. KANE. Yes, sir, we think it is. The United States has been a leader in nuclear energy technology for the last 50 years. We are still the leader in the world. The rest of the world does look to the United States for leadership in this technology.

Unfortunately, our manufacturing sector, over the last 25 years, has declined to the point where many of our large, nuclear components are, in fact, made overseas. And we think, though, that if we, in fact, do get on the pathway toward building advanced, new nuclear plants in the United States, we will see a revitalization, not only in the building program for those plants, but also in the manufacturing sectors in this country that would support that. We have work force challenges. I think all of our industries really do have work force challenges in trying to get the proper skills and education sets that we need moving forward, but I think if we pass this bill this year, it will send a very strong signal. And like the movie Field of Dreams, "If you build it, they will come," we believe the work force will be there.

Mr. HALL. Do you ever get the feeling that the nuclear people haven't done just a terrific job at educating the young about the use nuclear power and impress upon them that France lives off of it, and England lives off of the nuke in the North Sea. I ask that because I go to schools to speak to groups, and I am a great supporter of the nuclear thrust, even though I am from a fossil fuel State, and I ask how many are in favor of nuclear power, and none of them are, and I talk to the kids for 30 minutes from junior high on, and tell them about the fact that if we do certain things and solve our energy problems, and nuclear is a great part of that solution—if the signs that they hold up that say no nukes could say no wars, and they lack that. Only the teachers are still miffed, but it is—I just really think your industry ought to do more at that lower level to educate those youngsters at some of the other thrusts have done in the past because we need; we need it and have to have it, and it has great support here in the bill, as you know.

Mr. KANE. Yes, sir, Mr. Chairman. I agree with you. We need to do a better job, and I think over the next few years, you are going to see a redoubling of our efforts in exactly that area.

Mr. HALL. Mr. Nayak, excuse me. You testified quite extensively regarding the perceived threat of global warming, and yet you advocate phasing out nuclear energy, the world's largest source of carbon-free energy. Prominent environmentalists, including James Lovelock—you know James Lovelock?

Mr. NAYAK. Absolutely.

Mr. HALL. And Patrick Moore have recently suggest that nuclear power is needed to combat global warming. Why does your view differ with Dr. Lovelock and Mr. Moore?

Mr. NAYAK. Well, I am—first of all, I am not necessarily going to agree with every theory that Dr. Lovelock has.

Mr. HALL. Well, do you mind telling me what your disagreement with him is?

Mr. NAYAK. Exactly. Ultimately, I think that we—what we believe, and what I think a lot of environmental groups believe, is investing in nuclear energy to solve our global warming problem is just trading one problem for another. If you would allow me some poetic justice, the analogy is the heroin addict taking up crack to kick their heroin habit.

We have a nuclear waste problem that is a substantial environmental problem and public health problem in this country, and we will have 103 reactors—we have currently have—by 2011, we will have 63,000 metric tons of waste which we still have not figured what to do with. Building additional reactors and extending current licenses will only extend that problem, creating a larger concern for the public. So—and the other thing I would add is that they are not clean or completely fossil-fuel free the way that renewables are. You require a coal-fired power plant for uranium enrichment plants; you involve mining, which has substantial pollution involved with it. It is not comparable to a renewable energy resource.

Mr. HALL. You know, I was campaigning one time, and the lady just told me get off her porch and get off her property and threw my card back at me, and I told her, well, I was going to mark her down as doubtful. Would I mark you down as doubtful on the nuclear thrust? Your organization opposes Yucca Mountain and also the advanced fuel recycling program; that has to reduce the amount of radioactive waste that would require some permanent disposal. What do you propose as the solution for the need for nuclear waste disposal? Why don't we have to dispose of that, and why aren't we on the right route on it?

Mr. NAYAK. Well, I think that is an excellent question, and I feel like that is the question that Congress and everyone should be asking themselves, and I think the first step is that we need to stop producing more waste. We cannot continue to produce more waste and continue to build more plants while we hope to find a solution somewhere down the road. This is ultimately an example of passing a solution on to the next generation or to the next 20 generations and something that they will have to deal with. That is part of the problem, is we can't advocate any solution, but at this time, we would rather see the waste kept where it is, rather than—until we can find a place it that seems more stable than Yucca Mountain.

Mr. HALL. Okay. I will mark you down——

Mr. NAYAK. Doubtful?

Mr. HALL. Yeah, right. Thank you. My time—Mr. Boucher?

Mr. BOUCHER. Well, thank you very much, Mr. Chairman. I also want to say a word of welcome to this panel of witnesses. Mr. Shelk, I was pleased to note your testimony in support of the tax credits that are contained in the draft legislation, which were also a part of last year's conference agreement, that would encourage electric utilities to use a new generation of clean coal technologies and thereby use coal instead of natural gas in their new generating facilities. Last week we had the Administrator of the Energy Information Administration before us. He testified that if those credits are passed into law, an additional 20 gigawatts of new coal-fired capacity would be added that will not be added in their absence. So I think the message that we take from that is that these credits really will work. I have a sense that it is going to be very important for those of us who support the credits to spread the message that they will have a tremendous beneficial effect because there are going to be renewed pressures to reduce the overall amount of tax credit provided in the new energy bill, and we will be fortunate to come out, frankly, with the level of credit provided last year. So a word to the wise, for those who think this is a good way to relieve the pressure on natural gas prices, to encourage a greater utilization of the most abundant energy resource we have, I think making sure that we talk about this additional 20 gigawatts of capacity that the credits would add, and we do so very broadly, would be appropriate.

Let me just ask you, Mr. Shelk, if you have some examples of the kinds of technologies that would be employed by electric utilities to utilize coal and do so in an environmentally superior way? You might want to start with integrated gasification combine cycle and talk about that and some of the others.

Mr. SHELK. Thank you, Congressman Boucher. And you have been a leader, as have other members of this committee, on a bipartisan basis in support of those tax incentives, which, as you said, really are a core part of the overall strategy. The IGCC really takes the best of both worlds in the sense of having domestic coal reserves, 200 years plus, and actually, then gasifying the coal and using the synthetic gas from that process in a combined cycled natural gas unit, which is the most efficient natural gas unit on the market today; so it really marries the two. You deal with the supply problem of gas directly, but you have the advantage of the efficient technology.

That really is in part, and then taking it to the next level is really what the FutureGen Project is all about. I know the Secretary of Energy was here last week before you. He spoke today before the Science Committee. The budget reflects the importance of IGCC—

or—and FutureGen takes the IGCC platform, goes the next step to capturing carbon as well as producing hydrogen. As we indicated——

Mr. BOUCHER. Well, let me just say FutureGen is well into the future. We are talking about at least a decade out, and these tax credits would become available immediately, so that is apart from integrated gasification combine cycle. What other technologies are out there, that would be eligible for them and actually could make a difference in terms of expanding coal use.

Mr. SHELK. Wisely, the Congress has provided both IGCC incentives in the tax area and in the non-tax area as well as advance pulverized coal and advanced fluidized bed technology. For example, I had an Illinois example when Congressman Shimkus was here, but there are those proposing plants, for example in Southern Illinois and Kentucky and in the Southwest, where you essentially use new technologies that have been developed through the program like low NO_X burners and other things, so the emissions are literally a fraction. For example, in the case of the Illinois plant, what is being proposed is a 1,500 megawatt energy campus, which would be a major source of supply, would take Illinois coal that out of the ground, uncontrolled, would have 9 pounds of sulfur per million BTU and take it down to less than one-fourth of 1 pound, which is actually even less than what the Clear Skies rules would require over the Clear Skies legislation—so the technology is out there. As is always the case with IGCC or the others, there is that risk of being the first out of the box, the financial risk and the technical risk, which is why all of the programs in the legislation, culminating with tax provisions, really help bridge that gap to get this technology out there. It is no sense having the good work—to develop it if it doesn't later get deployed.

Mr. BOUCHER. Okay. Mr. Shelk, thank you very much. Mr. Chairman, that is all I have.

Mr. HALL. Mr. Strickland, you and I agree that I ought to recognize Mr. Dingell for 5 minutes, being of sound mind, don't we? The venerable longtime Chairman of this committee is recognized for as much time as he consumes.

Mr. DINGELL. Thany you for the courtesy. I will try and respect the time limits of the committee.

First of all, to this distinguished panel, welcome. It is a pleasure to see you here before us. Thank you for being here, especially you, Mr. Shelk, who have served with distinction on the staff of this committee. We are happy to see you back.

My questions are first for Mr. Fahlund. I understand your organization has been very active in hydroelectric relicensing proceeding before FERC. Can you tell us how many licensing proceedings American Rivers has participated in over the last 15 or 20 years?

Mr. FAHLUND. Directly or indirectly, well in excess of 200, sir.

Mr. DINGELL. Now, during that time, has the process become more or less burdensome to all parties who participate in the relicensing proceeding?

Mr. FAHLUND. I think the process has become less burdensome.

Mr. DINGELL. Now, Mr. Fahlund, I understand that FERC introduced a streamline licensing procedure in 1997, known as the alternative licencing process or ALP. Did your organization support the creation of the ALP?

Mr. FAHLUND. Yes, we did.

Mr. DINGELL. Now, Mr. Hancock, did the hydro industry support the creation of ALP?

Mr. HANCOCK. Yes, we did, sir.

Mr. DINGELL. Now, Mr. Fahlund, has the ALP reduced the time it takes to relicense a project?

Mr. FAHLUND. Yes, it has, sir.

Mr. DINGELL. Is that a significant reduction?

Mr. FAHLUND. If you include reduction in litigation, yes, sir.

Mr. DINGELL. Both in terms of time and litigation and the proceedings, themselves, is that right?

Mr. FAHLUND. Yes, sir.

Mr. DINGELL. Now, has the ALP led to less litigation between the different parties to relicensing?

Mr. FAHLUND. Yes, sir.

Mr. DINGELL. And has ALP reduced costs?

Mr. FAHLUND. Yes, we believe it has.

Mr. DINGELL. Are you aware of any evidence that would support these claims?

Mr. FAHLUND. There are several studies that exist, one by FERC, one by EPRI, that say that collaboration and the processes that are used in ALP do result in less cost and less time.

Mr. DINGELL. Would you assist the committee by making that—by helping to identify those studies and perhaps submit to us the information——

Mr. FAHLUND. We would be happy to submit that for the records, sir.

Mr. DINGELL. Now, Mr. Hancock, does your testimony cite any hard evidence which is contrary to claims you have heard Mr. Fahlund make?

Mr. HANCOCK. Do we have evidence——

Mr. DINGELL. To the contrary. To what——

Mr. HANCOCK. [continuing] to the contrary?

Mr. DINGELL. [continuing] of he has just said.

Mr. HANCOCK. It is our experience that the process with the ALP, and hopefully with the new integrated licensing process that FERC has implemented, will assist on the process side. The bill that we testified about today with the mandatory conditions deals, with the agency condition—which is a separate process outside of the FERC licensing process.

Mr. DINGELL. But the ALP and the other things which have been going on in the agency have significant expedited and reduced the costs of the process?

Mr. HANCOCK. The process costs, generally, yes.

Mr. DINGELL. Thank you. Now, I understand that FERC—this is back to Mr. Fahlund—has instituted another administrative reform, known as the integrated licensing process, to which Mr. Hancock just referred. It is designed to foster board cooperation to decrease costs and to decrease processing time. Is that correct?

Mr. FAHLUND. Yes, it is, sir.

Mr. DINGELL. Now, Mr. Fahlund, your organization supported the ILP process?

Mr. FAHLUND. We did, and we participated in its development.

Mr. DINGELL. Mr. Hancock, I believe your industry did so, also. Did it not?

Mr. HANCOCK. We did as well.

Mr. DINGELL. Thank you, gentleman. So it is fair to say, then, that FERC has undertaken 2 significant administrative actions without amendments to the Federal Power Act, which are designed to make the licensing process more collaborative, less costly, and less time consuming while allowing the relevant parties to fully participate. Is that a fair statement, Mr. Fahlund?

Mr. FAHLUND. Yes, it is.

Mr. DINGELL. Now, with regard to the Energy Policy Act of 2005, under the energy bill under consideration, we would amend the Federal Power Act to grant appeal rights to one party only; that would be the utility. This would exclude other relevant parties, some of which would be the State, the Indian tribes, conservationist, conservation organization, ordinary citizens, sportsman's groups, and I believe, State and local units of governments. Is that correct?

Mr. FAHLUND. That's correct.

Mr. DINGELL. Now, all of these groups have a vested interest in the effects that hydropower has on rivers and fish and wildlife. Is that correct?

Mr. FAHLUND. Extensive.

Mr. DINGELL. Mr. Fahlund, are you aware of any other practice in FERC's hydroelectric licensing process that affords certain parties procedural right, but denies them to other parties, as this legislation would?

Mr. FAHLUND. No.

Mr. DINGELL. Mr. Hancock, are you aware of any procedures at FERC which would allow procedural rights to certain parties, but deny those rights to other parties?

Mr. HANCOCK. I am not aware of any, but I would like to make clear that the bill does not provide for an appeals process.

Mr. DINGELL. It does not?

Mr. HANCOCK. It does not, in our view, provide for any appeals process.

Mr. DINGELL. That appears to be another problem that we must address.

Now, Mr. Chairman, I want to thank you, and I want to thank our panel. Mr. Hancock, Mr. Fahlund, you have been very helpful to the committee. I thank you all. Mr. Chairman, for your courtesy to me, thank you.

Mr. HALL. A gentleman from Ohio, 5 minutes.

Mr. STRICKLAND. I want to thank you, Mr. Chairman. Mr. Kane, I am concerned that in the President's budget, he includes language which terminates the cold standby of the Portsmouth gas diffusion facility in 2006. My understanding at the time that facility was placed in cold standby, it was done so in the event that there would be a significant interruption of fuel supply for our nuclear reactors, and I am told that about 80 percent of that fuel is currently coming from sources outside the country, and I am also led to believe that USEC, the United States Enrichment Corporation, is not likely to have a functional facility—new facility operation, perhaps until 2011 or well beyond that time. I am concerned about what would happen if there was a significant disruption of fuel supply. Is my concern, in your judgment, well founded, and what would happen if, in fact, there was a significant interruption of fuel from foreign sources.

Mr. KANE. All right. Mr. Strickland, as you know, the fuel that we use in our commercial nuclear reactors, about one-half of which comes from Russia is——

Mr. STRICKLAND. Russian.

Mr. KANE. [continuing] from down-winded warheads, the swords to plowshares type of program. Now, we are concerned and really want to make sure that we have a domestic capability so that there is no interruption in the fuel supply, and we support USEC's efforts in that regard. As you know, too, there is a national enrichment facility initiative in New Mexico that is beginning as well. We think that both of those have great merit. We support the competition that that would represent and also the redundancy in keeping the fuel supply secure.

Mr. STRICKLAND. Obviously, I have parochial interest in the Portsmouth facility, and what is happening in New Mexico and the fuel we are getting from Russia—I mean there have been disruptions with the Russian supply in the past. We hope our relationships with Russia will remain friendly and that will be no problem, but when you have got an industry that supplies perhaps 20 percent of our Nation's total electricity output and you are depending upon foreign sources for—and if I am not correct, in my assumption, please correct me. But perhaps up to 80 percent of the fuel that supplies the 20 percent of our electricity, don't you think that we need some back-up plan in case there is, for whatever reason, a serious disruption in that fuel supply. My understanding is that if the Portsmouth facility is taken off cold standby, then it will not be possible in the future, if needed, to begin the processing of the fuel supply at that plant once again. Is that—I mean is what I am saying consistent with your understanding, and if not, would you please help me understand where my thinking is faulty.

Mr. KANE. We have what appears a reliable fuel supply now that comes from a variety of different sources, and one of them is domestic. It comes from the United States Enrichment Corporation. We think that is important to keep that fuel supply intact. We get a lot of our fuel, as we have talked about, from Russia, but a lot of it comes from foreign enrichers as well. So it is a global marketplace. It is a competitive venue; but we feel that we need to have a domestic producer that is viable and can play the kind of secure role that you are talking about. We support that.

Mr. STRICKLAND. Well, I feel like we need domestic supply as well, and I am—you know, Mr. Chairman, I am one of those Democrats that, you know, thinks we need nuclear power. But this is my concern. If we do not have a domestic supply, if the fuel supply from foreign sources would be seriously disrupted—hopefully, it won't be; probably, it won't be; but it could be, and it may. And why does this administration not choose to keep the Portsmouth facility on cold standby so that if we need to produce that fuel before USEC has the capacity to do what we all want it to be able to do at some point in the future—if it was important to keep the Portsmouth facility on cold standby in 2004 and 2005 and through 2006, why is it not important to keep it on cold standby until we have a domestic supply that we can count on without having to rely upon the Russians? I personally think it is not a responsible decision on the part of the administration to take this gamble, and I am just puzzled that a decision has been made to cease cold standby in 2006 and thereby put us in a position where we could be very vulnerable. I hope it doesn't happen, but I would hate for us to be meeting in this committee, there to be a disruption of the fuel supply from Russia—20 percent of our electricity depends upon nuclear power, 80 percent of that fuel coming from foreign sources—and we don't have the fuel we need. It just seems irresponsible. And thank you for the time and chance to vent. I appreciate your answers, sir.

Mr. KANE. Sir.

Mr. HALL. Thank you. I can't say that there is not affable warning in the record. And to all of you gentlemen, we thank you. And the fact that no one—that there are not a lot of members here—your testimony is for the record, and everybody gets a copy, and everybody will be studying it, and all of you have something to give in conjunction with the energy bill. And all of you want to solve the same thing; that's reliance on foreign energy. So we are not all in the same vehicle, but we are going in, I think, the same direction, and I really thank you for your testimony. I am not going to have a bunch of other questions I want to ask, but if I need to, I will write to them and ask unanimous consent to use that mail thrust. With that, thank you once again. I thank you very, very much. We are adjourned.

Mr. MARKEY. Mr. Chairman? Is it possible, Mr. Chairman, in the magnificence of your generous heart that I could as——

Mr. HALL. Just as soon as Mr. Boucher leaves, I'll ask you—no, it is not possible because he has to be here to have——

Mr. MARKEY. Just 5 minutes——

Mr. HALL. Do you all—do you men mind him asking a few questions? Let me ask somebody over here. What about—is that okay with you all? Does anybody here object to it? Okay? All right. Markey, you are running the Congress now, just get after it.

Mr. MARKEY. You can leave now if you want. Mr. Kane, my——

Mr. KANE. Yes, sir.

Mr. MARKEY. In your testimony, you state that the provision of H.R. 6 that would require the NRC to conduct a rulemaking to devise—to revise the design bases threat security regulations and require the establishment of a force-on-force exercise program should be eliminated because the activities have already occurred. Is it not true the Commission undertook some security orders to revise the design bases threat, but has yet to conduct a public rulemaking?

Mr. KANE. What happened was they made an order, an interim compensatory measures order, and it required the industry to be in compliance last year with the new design bases threat, which is—which was on October 29, and all of the units were found to be in compliance with that.

Mr. MARKEY. Well, right after the attacks of September 11, the nuclear industry began to assert that there was no clarity in what it responsibilities were in the area of nuclear reactor security. Specifically, the industry claimed to be unclear as to what its role was in protecting the reactors against attack versus what the government's role was. The provision that you suggest be eliminated from the energy bill also requires the President to determine what those respective roles are. Do you believe that this determination has already been made? If so, please elaborate.

Mr. KANE. Yes. We have been working closely with the Nuclear Regulatory Commission and with the Department of Homeland Security and are going about, now, determining through a system of councils. There is a Nuclear Coordinating Council, as there is with other segments of the critical infrastructure, that we are working with now to determine exactly what those interrelationships and an integrated response would be. But we are—we feel we have met, and the NRC agrees, that we have met the design bases threat piece that was in section 661 of the bill.

Mr. MARKEY. All right. Well, the Commission recently decided to allow the Nuclear Energy Institute to hire Wachenhut Corporation to serve as the adversary force at nuclear reactor even though Wachenhut forces currently guard about one-half of the Nation's operating reactors and even though there have been numerous reports of Wachenhut cheating or failing at force-on-force exercises at nuclear facilities. Just today, the Department of Energy Inspector General reported that Wachenhut personnel brought personal firearms onto the Nevada test site, against regulation. As you can guess, I don't think that the industry should be allowed to test itself, and none of the reported safeguards that are in place to mitigate the obvious self—obvious conflicts of interest are sufficient, but that hasn't addressed the obvious question of why the NEI hired a company with such an abysmal record of incompetence, cheating, and rule violations. Can you please describe the process by which the NEI made its decision to hire Wachenhut instead of another company, given the fact that Wachenhut is the guard for one-half the plants? How can a company test itself with regard to the security of the facilities that it already has a contract to protect?

Mr. KANE. All right. Part of the process in selecting the force-on-force adversary part was we want to see the best possible and the most professional adversary force put together that we possibly can. I would use an analogy from Navy flying, a top gun for example. Navy pilots fly the adversary aircraft and mimic who the would-be opponents would be, and they do a heck of a good job. And what we are trying to do here is to be sure that we have the very best adversary force.

Mr. MARKEY. I understand that, but the difference here is that Wachenhut makes money from guarding nuclear power plants today. So to have Wachenhut, then, do a test to whether or not—given the fact that is a corporation and it has to report to its shareholders, is it the same as having one group of Navy public servants test another group of Navy public servants, each in terms of their competency. It is just a completely different—in other words, Wachenhut's primary obligation is to their shareholders. In there—in the actual formation of their corporation, it says their principal duty is to their shareholders.

Mr. KANE. Right, but——

Mr. MARKEY. So if that is the case, and they short-change on safety, how can another part of Wachenhut bring them to account for something that is at the core of what their responsibilities are?

Mr. KANE. Right. I would say that these force-on-force security exercises are designed by the NRC, overseen and graded by the NRC, and the Wachenhut force-on-force—the adversary group provides what we think is probably the best adversary force that we can put together.

Mr. MARKEY. All right. I think it is an inherent conflict of interest. I think that is a huge mistake to have Wachenhut do the job, given their own track record. They need people overseeing them, and they need an independent group to be doing. I think it is a huge public safety risk that has been run in allowing that to happen, and I just hope that the public safety, in the long run, doesn't pay the price, given the deficiencies that exist in Wachenhut, generally. And I would say, Mr. Chairman, given your generosity and time, that—in conclusion, that the NRC has never done a public rulemaking on security. It has met secretly with the NEI and its members, but it has never done a rulemaking. I've read the secret orders. I find them wholly inadequate, and I think the NRC's failure to do a public rulemaking led to a product that is entirely deficient and which fails to protect against a terrorist attack on nuclear plants. I think that the hiring of Wachenhut to do the tests on the force-on-force security at nuclear power plants is just an example of the inadequacy of NRC oversight over this issue. It, once again, demonstrates just too-cozy a relationship with the nuclear industry that pays too much attention to the bottom line of the nuclear industry companies and not enough to the public safety and security issues. And I just wanted to put that on the record, Mr. Chairman, because we do know that Al Qaeda continues to place nuclear issues at the very top of their terrorist target list, and I think it is wrong for the NRC not to have yet gone through a public, formal rulemaking.

Mr. HALL. The record will reflect will opinions, and the record will reflect that we do not all agree with you. Will you yield back your time, Mr. Markey?

Mr. MARKEY. I will say that that Chairman—I will just—but just to point out, thought, that the Chairman has already voted for me 3 times in this committee to force a formal rulemaking by the Nuclear Regulatory Commission on these issues, and I appreciate your support.

Mr. HALL. 3 times in 24 years is not bad, is it?

Mr. MARKEY. Even a blind squirrel uncovers an acorn once in awhile.

Mr. HALL. I respect Mr. Markey; we just don't always agree. But I think we help one another. I think my being against him helps him in Massachusetts, and him being against me helps me in Texas.

Seriously, I am not going to take a lot of time thanking you again. I am afraid somebody else will come in, but good luck to you. And we are, Mr. Markey, adjourned.

[Whereupon, at 3:02 p.m., the subcommittee was adjourned.]

[Additional material submitted for the record follows:]

RESPONSE FOR THE RECORD BY ANDREW FAHLUND, VICE PRESIDENT FOR CONSERVATION AND RESTORATION, AMERICAN RIVERS, CHAIR OF HYDROPOWER REFORM COALITION

Question 1. At one point in your testimony you state that environmental conditions were ignored for the last 50 years of hydro licensing and then you state that mandatory conditions have been part of the Federal Power Act since 1920. Please explain these statements.

Response: My testimony made it clear that while the authority of the Secretaries of the Interior, Commerce, and Agriculture pursuant to Sections 4(e) and 18 have been part of the Federal Power Act since the earliest years of the statute, society's understanding of the environmental impacts of hydropower dams has grown. As with all science, ecology and engineering have improved dramatically over the past 50 years and can better evaluate and address environmental impacts of hydropower dams. The values that society places on environmental benefits and services have also evolved tremendously since the last time most expiring licenses were evaluated.

Additionally, these values are reflected in several more recent laws that influence how sections 4(e) and 18 are implemented today in relicensing. The National Environmental Policy Act (NEPA) was passed in 1969. It requires federal agencies, including FERC, to prepare an environmental assessment or environmental impact statement describing the likely impact of various alternatives for a proposed federal action. NEPA includes a significant opportunity for agencies and the public to evaluate the consequences of these alternatives and enables public comment. The Clean Water Act was passed in 1972. Under Section 401 of the Clean Water Act, state water quality programs must be allowed to certify that federal actions involving the award of licenses will not violate applicable state water quality requirements. The Endangered Species Act was passed in 1973. That law requires that FERC consult with the Department of the Interior or Commerce if any listed species or their critical habitat, or any species proposed for listing, may be affected by the project. The 1986 amendments to the Federal Power Act enhanced environmental considerations even further to explicitly include fish and wildlife protections.

Over the last two decades, new laws and new science have contributed to the resource agencies developing a better understanding of their legal authorities, and the courts have added further clarification. Finally, recreational, environmental, cultural, and other values associated with rivers have placed new demands on resource agencies, different from what they experienced 50 years ago.

Question 2. You reference the Tapoco settlement as a model for settlements—the Committee was happy to mark up that bill last year with bipartisan support and the president has signed it. Why would the bill make that settlement unlikely?

Response: The bill would grant license applicants a "super-status" in the licensing process. License applicants alone would be allowed to challenge issues of material fact through so-called "trial-type hearings" and would also be able to offer alternative conditions that the mandatory conditioning agencies must accept. Because no other party, including states, tribes, citizen groups, or local landowners are granted these same rights, hydropower proceedings would commence with federal mandatory conditioning agencies treating the license applicant with far greater deference than the interests of others. Because other parties would have no firm recourse to challenge the agencies, they would be relegated to a status lower than licensees, one in which their concerns could be ignored. While some licensees might still seek collaborative settlement agreements, many licensees would see their best avenue to a resolution as contesting the resource agencies at every turn. In the case of the Tapoco settlement, to which we were a party, the equal status of all parties helped ensure a settlement to which all parties could agree. Moreover, the additional burdens of costly and duplicative review embodied in the bill would also deter agencies from even establishing mandatory conditions in the first place, especially in light of their limited budgets and staffing.

Question 3. How can FERC balance environmental concerns with other considerations, such as economic and power generation concerns, when the environmental conditions are mandatory and cannot be changed by FERC? Why shouldn't these other agencies consider other factors (such as power generation, etc.) when developing mandatory conditions? Otherwise, it seems that environmental considerations are the "first among equals" when FERC must make its evaluation for license renewal.

Response: Rivers cross many jurisdictional boundaries and are typically managed in a complex system of federalism. The resources in question under sections 4(e) and 18, migratory fish and federal reservations, are managed by agencies that have responsibility for them at each stage, and must have corresponding authority. When Congress passed the Federal Power Act, it expressly recognized that while FERC has the ultimate responsibility to issue licenses for hydropower dams, those other agencies should retain authority over migratory fish and federal reservations. Requirements under the Clean Water Act that grant similar authority to the States to maintain water quality standards further this approach of providing authority to the agencies responsible for each aspect of river management. Upon amending the Federal Power Act in 1986, Congress required FERC to give equal consideration to power and non-power values and to issue licenses that are best adapted to a comprehensive plan of a waterway, but retained the authority for section 4(e) and 18 conditions established in 1920.

These mandatory conditions therefore are a “floor” of environmental protection above which the Federal Power Act requires FERC to balance the public interest and consider imposing additional requirements. To suggest that minimal environmental standards cause a project to be uneconomic is akin to blaming dam safety requirements or regional power rates as the culprit. Minimal environmental conditions are merely one cost among many that may lead a project's expenses to exceed its revenues, just as regional power rates, dam safety requirements, and basic management costs factor into such a calculation.

Question 4. You state that the bill will not bring current hydro projects up to today's environmental standards. What specific parts of the bill prevent the imposition of environmental conditions at projects?

Response: Subtitle C, Part I, Sections 231 and 33 establish processes that grant license applicants a “super status” in the licensing process and saddle resource agencies with redundant and costly additional procedures without giving them the necessary resources to undertake them. These processes will result in weaker environmental conditions. See my answers to questions 2, 3, and 5.

Question 5. Your testimony states that current proposals in Title II would bias the process and reduce standards for environmental protection. However, the federal resource agencies' existing authority to issue conditions for hydropower projects, as well as the current role of states, tribes, environmental groups and other stakeholders, is all preserved. Is this true?

Response: By establishing several new authorities and processes, available only to the license applicant, Title II biases the process in their favor and away from state resource agencies, treaty-holding tribes, citizen groups, and landowners. The rights of other parties, although preserved, are left weakened when the licensee consistently gets the last word before the mandatory conditioning agencies. By virtue of this disparity in authority, agencies will view the interests of the license applicant as their primary concern and will develop conditions that favor these interests over that of other stakeholders. Requiring agencies to consider public interest values equally with the private costs of the licensee will only further exacerbate this problem.

RESPONSE FOR THE RECORD BY NAVIN NAYAK, ENVIRONMENTAL ADVOCATE, U.S. PUBLIC INTEREST RESEARCH GROUP

Question 1. Are the problems you cite with FirstEnergy problems with nuclear technology or just that company and its management at that time?

Response: The problems at FirstEnergy underscore the risks associated with nuclear energy. Any mistake or problem in the nuclear industry carries much greater consequences than in other energy sectors, as demonstrated by the long-term health and environmental impacts of Chernobyl. The problems at FirstEnergy also highlight the failures of the Nuclear Regulatory Commission to adequately oversee the nuclear industry and protect the public from the risks of nuclear power.

Question 2. If we eliminate nuclear power from the mix of energy sources, what do we replace it with? Don't renewables such as biomass also produce greenhouse gases?

Response: The question highlights Congress' inability to think outside of our current energy paradigm. The fact that the U.S. produces 20 percent of its electricity from nuclear power is not an accident; it is the result of conscience decisions by Congress to subsidize and promote the industry. If the federal government had not provided more than $70 billion in taxpayer funded subsidies, limited liability in the case of a serious accident, and a taxpayer funded repository the nuclear industry would not exist in this country as it does today. As a case in point, the nuclear industry is utterly incapable of building new plants in this country without significant federal support—as much (and likely more) than $1 billion per plant.

Instead of continuing to subsidize the same conventional and dirty energy industries that dominant our energy production today, it is time for Congress to consider alternatives to our current energy mix.

First, it is important to highlight that energy production is NOT and end in itself. It costs consumers and businesses money to consume energy, and energy production has serious environmental and public health consequences. Therefore, our first priority should be to increase the efficiency with which we use energy—without compromising our current standard of living. By investing in energy efficient appliances, buildings, and homes, conservative estimates suggest that we can reduce energy use by as much as 28 percent by 2020.[1]

Second, the Energy Information Administration's analysis concludes that the U.S. has the technical potential to generate four times our total current electricity use from renewables. Unfortunately, we only obtain less than 3 percent of our electricity from renewables.

Over the past 50 years, the federal government has provided more than $500 billion in subsidies to the oil, gas, coal, and nuclear industries. If we provided the same kind financial commitment to energy efficiency and renewable energy, we could minimize or eliminate the need for nuclear power and other polluting energy sources.

Question 3. You mention Chernobyl as an example of nuclear power's potential danger to our communities. Are there any operating commercial nuclear reactors in the U.S. producing power today of a similar design to Chernobyl?

Response: Presently, there are no other reactors of a similar design operating in the U.S. However, that does not imply that nuclear power—as it currently functions in the U.S.—is not a threat to Americans. Several accidents, like the partial meltdown at Three Mile Island, and the near accident at Davis-Besse, underscore the severe threat posed by nuclear power in this country. These concerns do not include the grave threats posed by transporting and storing nuclear waste for the next 300,000 years, but are limited to the simple threat of operating nuclear power plants in this country.

In the post-9/11 world, the threats related to operating nuclear power plants are only enhanced, given that we know that terrorists were surveying nuclear power plants as possible sites of attack.

Question 4. You claim that the Price-Anderson Act is an "unwarranted taxpayer subsidy" and that it is "taxpayer-funded insurance for the nuclear industry in the event of an accident." Can you tell me how much taxpayer money has been spent to date and how much would be spent in the event of an accident?

Response: The clean-up costs related to the Chernobyl accident cost $358 billion. It is estimated that an serious accident in the U.S. would cost on average $110 billion and as much as $560 billion. In the event of a severe nuclear accident in the U.S., the nuclear industry is only liable up to $10.1 billion—or less than 1/10 of the total clean-up cost. Beyond the $10.1 billion provided by the industry, the federal government would have two choices: either refuse to compensate victims for the accident or use taxpayer dollars to do so. Either way, the public is treated unfairly, while the nuclear industry is not held responsible for their actions.

Thankfully, since there has not been an accident exceeding the industry's limited liability, taxpayers have not yet had to pay to compensate the industry.

NATIONAL PETROCHEMICAL & REFINERS ASSOCIATION

The Honorable RALPH HALL
Chairman
Subcommittee on Energy and Air Quality
Committee on Energy and Commerce
United States House of Representatives
2125 Rayburn House Office Building
Washington, D.C. 20515-6115

DEAR CHAIRMAN HALL: On behalf of the National Petrochemical & Refiners Association (NPRA), thank you for giving me the opportunity to respond to the questions you have submitted on behalf of yourself, Congressman Dingell, and Congresswoman Solis. I also appreciated the opportunity to present NPRA's views at your February 16, 2005 hearing, *Energy Policy Act of 2005: Ensuring jobs for Our Future with secure and Reliable Energy.*

NPRA looks forward to working with the Committee in the hope that our recommendations will become an integral part of comprehensive energy legislation. If you have any questions or concerns regarding this submission, please do not hesitate to contact me.

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[1] Nadel, S., MonisShipley, A., and Elliott, R.N. American Council for an Energy-Efficient Economy, The Technical Economic, and Achievable Potential for Energy Efficiency in the United States: A Meta-Analysis of Recent Studies, 2004.

Sincerely,

BOB SLAUGHTER
President

QUESTIONS FROM HONORABLE RALPH M. HALL:

Question 1. It is my understanding that the water industry supports legislation that would provide broad liability protection if the water provided by suppliers met applicable state and federal standards. Is that correct, and if so can you describe that legislation and the nature of the water industry's support?

Answer 1. Your understanding is correct. The Drinking Water Standards Preservation Act (H.R. 306) is designed to offer broad protection against liability claims advanced against water systems that otherwise deliver water meeting applicable governmental standards. See H.R. 306, Drinking Water Standards Preservation Act of 2003, 108th Cong. (2003). The premise of the bill is that regulatory agencies have established adequate safeguards for water quality based upon their expert judgment. The legislation broadly supports a "conflicts preemption" theory advanced in the Supreme Court case of *Geier v. American Honda*. The legislation the water groups support even finds that drinking water quality is "not appropriate for individual juries deciding individual cases in the separate States, but rather is fundamentally a scientific issue to be resolved by appropriate Federal and State agencies . . ." See H.R. 306.

In the same spirit as H.R. 306, MTBE manufacturers and refiners note that MTBE was explicitly approved for use in satisfaction of a federal regulatory standard, the two-percent oxygen standard, by the same federal agency tasked with water-quality regulatory authority. However, the liability protection provision in the energy bill is a considerably more narrow provision than water systems ask for themselves. In fact, the energy bill provision contains a savings clause that protects many other causes of action, prohibiting only defective product claims (including failure to warn).

Reporting on this support, one trade publication states, "The American Water Works Association (AWWA) is backing a proposed law that would shield water utilities from lawsuits if they are in compliance with federal and state regulations." *See* WaterTech.Online, *Water utilities would be protected from lawsuits in new legislation,* April 23, 2003, located at http://waternet.com/News.asp?mode=4&N_ID=39946.

Question 2. Has MTBE been classified as a human carcinogen? Can it be classified as a human carcinogen? Could you provide evidence for the record?

Answer 2. MTBE is one of the most widely studied chemicals in commerce, including pharmaceuticals. The overwhelming majority of scientific evaluations—government and independent health organizations—have failed to find sufficiently compelling reasons to classify MTBE as a possible cancer-causing agent for humans.

- The U.S. Department of Health and Human Services found that there is not sufficient evidence to list MTBE in its annual *Report on Carcinogens. See* U.S. Department of Health and Human Services, Public Health Service, National Toxicology Program, *Report on Carcinogens, Tenth Edition,* app. C (December 2002), located at http://ntp-server.niehs.nih.gov.
- The European Union Risk Assessment on MTBE found that "[i]n view of the lacking or limited relevance of the findings for man, and the low potency demonstrated in animal studies, human cancer risk is presumed to be low." See European Union Risk Assessment on MTBE, *Tert-Butyl Methyl Ether Summary Risk Assessment Report,* (2002), located at http://www.calgasoline.com/MTB—0011.PDF.
- The World Health Organization's International Agency for Research on Cancer concluded that there is inadequate human evidence, and limited animal evidence, for the carcinogenicity of MTBE, leading to overall classification of MTBE as "not classifiable as to its carcinogenicity to humans." See World Health Organization, International Agency for Research on Cancer, *Methyl tert-Butyl Ether,* Vol 73, 339 (1999), located at http://www-cie.iarc.fr/htdocs/monographs/vol73/73-13.html.
- The World Health Organization references rodent data, stating its inconclusiveness should, "prohibit their use for human carcinogenic risk assessment." Moreover, the World Health Organization stated that "[t]he weight of evidence suggests that MTBE is not genotoxic. A large number of studies using *in vitro* and *in vivo* mammalian and non-mammalian systems have been conducted to assess the mutagenicity of MTBE, almost all of which have produced negative results."

See *Rolling Revision of the WHO Guidelines for Drinking-Water Quality,* Summary Statement (January 2005) (Draft), located at http://www.who.int/water_sanitation_health/dwq/chemicals/en/mtbe1staddsum.pdf

- The U.S. Environmental Protection Agency has not classified MTBE as a human carcinogen. *See* Environmental Protection Agency, MTBE Fact Sheet #1, 3 (January 1998) located at http://www.epa.gov/swerust1/mtbe/mtbefs1.pdf. *See also* Environmental Protection Agency, *Assessment of Potential Health Risks of Gasoline Oxygenate with Methyl Tertiary Butly Ether (MTBE),* 28 (November 1993), located at http://www.epa.gov/swerust1/mtbe/mtbe1193.pdf.
- Finally, the Agency for Toxic Substances and Disease Registry states that "[t]here is no evidence that MTBE causes cancer in humans." *See* Agency for Toxic Substances and Disease Registry, Methyl tert-butyl ether (MTBE) ToxFaq, (September 1997), located at http://www.atsdr.cdc.gov/tfacts91.html.

Question 3. Opponents of the MTBE limited liability provision have discussed the extent of knowledge of potential water quality problems prior to the adoption of the two-percent oxygenate standard. What evidence exists that the U.S. Environmental Protection Agency had extensive knowledge of potential water quality problems prior to EPA's approval of the use of MTBE in satisfaction of the federal mandate?

Answer 3. EPA's actions in the 1980s show that multiple offices in EPA had concerns regarding groundwater detections of MTBE prior to the adoption of the 1990 Clean Air Act amendments.[1]

By the end of 1986, multiple offices of EPA were aware of evidence of contamination of groundwater from MTBE. The Office of Toxic Substances (OTS) knew of examples of contamination by October 1985 and shared this information with the Offices of Drinking Water and of Groundwater Protection by May 1986.[2] In October 1986, in accordance with its mandate to make recommendations for chemical testing, the Interagency Testing Committee (ITC), recommended chemical testing for MTBE.[3] In response, OTS held a public meeting in December 1986 to discuss the ITC's recommendations and the development of a consent order, in accordance with the Toxic Substances Control Act (TSCA), for industry to generate responsive data on MTBE. Various representatives of EPA attended this meeting, including staff from OTS and the Office of Air and Radiation (OAR).[4]

At this public meeting, OTS staff stated that the Agency needed more information on the presence and persistence of MTBE in groundwater. They explained that existing OTS research raised concerns regarding alleged MTBE groundwater issues and noted about 30% of the 700,000 underground storage tanks (USTs) for petroleum products were leaking.[5]

By the beginning of 1987, OTS apparently knew of MTBE groundwater concerns only in Maine and North Carolina, and was seeking further information from State authorities.[6] OTS was also aware of a paper by Peter Garrett of the Maine Department of Environmental Protection, entitled "Oxygenates as Ground Water Contaminants," which discussed MTBE specifically. Indeed, OTS even recommended such information to competitor lobbyists seeking to undermine MTBE.[7] OTS appears to have circulated Garrett's to interested parties and referred such parties to him.[8]

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[1] This summary reflects conclusions drawn from review of records in the docket for the Office of Toxic Substances MTBE testing consent order and from the docket for the 1988 technical standards rulemaking for underground storage tanks, and of statements made by EPA in regulatory preambles.

[2] Memorandum from Frank D. Kover, Chief, Chemical Screening Branch to Michael B. Cook, Director, Office of Drinking Water and Marian Milay, Director, Office of Groundwater Protection (May 23, 1986) (on file with TSCA Docket No. OPTS-42098, fiche No. 514447).

[3] Nineteenth Report of the Interagency Testing Committee to the Administrator; Receipt and Request for Comments regarding Priority List of Chemicals, 51 Fed. Reg. 41,417, 41,426 (Nov. 14, 1986). Established under TSCA Section 4(e), the ITC recommends chemicals for priority consideration in EPA's chemical testing program.

In its report, the ITC acknowledged that MTBE had been found in groundwater in North Carolina, but attributed that particular contamination to spills during transfer of gasoline from seagoing tankers to onshore storage facilities. *Id.* at 41,425. More generally, the report concluded that "Despite its relatively high water solubility, MTBE is expected to partition largely to air . . . any MTBE present in surface water will have a half-life of about 9 hours before volatizing . . . most of the MTBE released to the environment will be released directly to air during transfer operations[, and] . . . MTBE [will have] little tendency for significant partitioning to soils, sediments, or biota." Id. At the same time, the report also stated that "Persistence in ground water following spills is unknown, but it may persist for long periods if volatilization is prevented, since MTBE is not likely to be readily biodegraded or otherwise transformed in ground water." *Id.*

[4] OPTS, December 17, 1986 Focus Meeting Presentation on Methly-tert-butyl-ether (MTBE) and Minutes of same meeting (on file with TSCA Docket No. OPTS-42098, fiche No. 514462).

[5] *Id.*

[6] *See* Letter from Elizabeth Anderson, OTS to Teresa Zibura, Maine Department of Human Services (De[illegible] 22, 1[illegible] (on file with TSCA Docket No. OPTS-42098, fiche No. 514472); Letter f[illegible] Zib[illegible] [illegible]abeth Anderson (January 12, 1987) (on file with TSCA Docket No. OP[illegible] [illegible] . 514[illegible]5).

OTS communicated with authorities in Ohio, New Mexico, New Jersey and the Delaware/Pennsylvania area in early 1987.[9] By the Spring, OTS had received additional substantive data from New Jersey, in particular, and had found some further references in journals to instances of MTBE in groundwater.[10]

In April 1987, OTS presented its tentative MTBE testing decisions at a public meeting.[11] Specifically, OTS proposed performing oral, dermal and inhalation pharmacokinetic studies,[12] which it intended to use to extrapolate oral/drinking water doses from the various inhalation studies to be performed under the consent order.[13]

Meanwhile, on April 17, 1987, EPA published its proposed requirements for underground storage tanks (USTs). While the proposal did not discuss MTBE, it noted that "the nation may be facing a pervasive threat to its ground-water from leaking UST systems."[14]

By the Fall of 1987, OTS had received substantially more evidence of MTBE groundwater detections through communications with authorities in New Mexico, Massachusetts, Maine, Oregon, Connecticut, and New Hampshire.[15] OTS also con-

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[7] *See, e.g.,* Record of meeting between Rich Troast and Beth Anderson, EPA and Jim Conrad, Petroleum Marketers Association of Canada (January 28, 1987) (on file with TSCA Docket No. OPTS-42098, fiche No. 514463).

[8] *See* January 28, 1987 Troast, Anderson and Conrad telecommunication, supra, n. 7; April 20, 1987 Nixon telecommunication, supra, n.7.

[9] Telephone communication between Herb Brass, EPA interagency liaison in Cincinnati, Ohio, and Elizabeth Anderson, OTS (February 6, 1987) (on file with TSCA Docket No. OPTS-42098, fiche No. 514621); Telephone communication between Dennis McQuillan, Groundwater and Hazardous Waste Bureau, New Mexico Environmental Improvement Division, and Elizabeth Anderson (February 9, 1987) (on file with TSCA Docket No. OPTS-42098, fiche No. 514623); Telephone communication between Leslie McGeorge, New Jersey EPA, and Elizabeth Anderson (February 11, 1987) (on file with TSCA Docket No. OPTS-42098, fiche No. 514626); Telephone communication between John Ruggero, an intra-agency contact, and Elizabeth Anderson (February 20, 1987) (on file with TSCA Docket No. OPTS-42098, fiche No. 514630) (discussing Pennsylvania/Delaware); Telephone communication between Ray Barg, NJ EPA safe drinking water office, and Elizabeth Anderson (March 2, 1987) (on file with TSCA Docket No. OPTS-42098, fiche No. 514644); Telephone communication between Ray Barg, NJ drinking water office, and Elizabeth Anderson (March 3, 1987) (on file with TSCA Docket No. OPTS-42098, fiche No. 514646); Letter from Ray Barg to Elizabeth Anderson (March 3, 1987) (on file with TSCA Docket No. OPTS-42098, fiche No. 514430).

[10] *See* Telephone communication between Peter Garrett and Elizabeth Anderson (March 4, 1987) (on file with TSCA Docket No. OPTS-42098, fiche No. 514648).

[11] *See* Minutes of April 21, 1987 Public Meeting (on file with TSCA Docket No. OPTS-42098, fiche No. 514465)

[12] *Id.*

[13] *See* Telephone communication between Elizabeth Anderson and David Bottoroff, Alcohol Week (October 1, 1987) (on file with TSCA Docket No. OPTS-42098, fiche No. 514742); *see also* Draft Memorandum from P.V. Shah to Elizabeth Anderson regarding Phrmacokinetic/Metabolism Test Rule for MTBE (October 1, 1987) (on file with TSCA Docket No. OPTS-42098, fiche No. 514456) (stating that the purpose of the study is to "Ascertain whether the pharmacokinetics and metabolism of test compound is similar after oral, dermal and inhalation administration.").

[14] *See* Underground Storage Tanks; Technical Requirements; Proposed Rule, 52 Fed. Reg. 12,662, 12,665-66 (April 17, 1987).

[15] *See* Telephone communication between Elizabeth Anderson and Dennis McQuillan (July 31, 1987) (on file with TSCA Docket No. OPTS-42098, fiche No. 514711); Letter from Karen Martin, Massachusetts Department of Environmental Quality Engineering, Office of Research and Standards, to Jacqueline Favilla, TSCA Public Information System (September 1, 1987) (on file with TSCA Docket No. OPTS-42098, fiche No. 514417); Letter from Theresa Zibura, Maine Department of Health, Public Health Laboratory, to Arnie Edelman, TSCA Assistance Office (September 3, 1987) (on file with TSCA Docket No. OPTS-42098, fiche No. 514589); Letter from Dennis McQuillan to Elizabeth Anderson (September 11, 1987) (on file with TSCA Docket No. OPTS-42098, fiche No. 514431); Letter from Antoinette S. Mason, Connecticut Department of Health Services, to Arnie Edelman (September 14, 1987) (on file with TSCA Docket No. OPTS-42098, fiche No. 514407); Memorandum from Jim Boydston, Oregon Drinking Water Program, to Arnie Edelman (September 22, 1987) (on file with TSCA Docket No. OPTS-42098, fiche No. 514594); Letter from Naomi Davidson, Connecticut Department of Environmental Protection, to Arnie Edelman (September 17, 1987) (on file with TSCA Docket No. OPTS-42098, fiche No. 514408); Letter from Jeffrey S. Smith, New Hampshire Department of Health and Human Services, Division of Public Health Services, to EPA (September 18, 1987) (on file with TSCA Docket No. OPTS-42098, fiche No. 514429).

By July 1987, OTS had information indicating that the threshold for MTBE contamination to have taste and odor impacts might be as low as a few parts per billion. See Telephone Communication between Beth Anderson, EPA, and Dennis McQuillan, New Mexico Groundwater &

Continued

tinued to coordinate with other EPA offices regarding MTBE, including the Office of Drinking Water (ODW) and OAR—for example, referring interested parties to ODW for further information on groundwater issues.[16]

The record also indicates that by late 1987 the Office of Water had become more concerned about MTBE in ground water. (As noted above, it was already aware by May 1986 that some contamination was occurring.) It appears, in fact, that the Office of Water may have had greater concerns regarding MTBE in groundwater than did OTS.[17]

In light of the Office of Water's concerns about groundwater issues, on January 22, 1988, EPA announced its decision to list MTBE on its Drinking Water Priority List of substances that may require regulation under the Safe Drinking Water Act.[18] The notice stated that MTBE had been detected in "a number of groundwaters, probably as a result of leaking underground storage tanks, disposal facilities, or spills."[19]

Two months later, in March 1988, OTS announced the MTBE testing consent order. The preamble to the order, once again, reflects the concerns OTS had regarding MTBE contamination of groundwater:

> EPA has an additional concern about MTBE contamination of ground water. Although only a few cases of ground water contamination are currently documented, the rapid growth in production, transport, and use of MTBE will probably contribute to an increase in incidents of contamination.[20]

The preamble goes on to discuss MTBE contamination in Maine, New Jersey and New Hampshire.[21]

The next month, the Office of Underground Storage Tanks (OUST) also expressed concerns regarding MTBE groundwater contamination. OUST published a study in April 1988 on clean-up of UST releases. This report reflects OUST's awareness that: MTBE was already in use in 10% of all gasoline and had become one of the top 50 chemicals in production because of its use as an octane enhancer due to phase-out of leaded gasoline;[22] and that MTBE contamination of groundwater had occurred due to UST leakage.[23] Five months later, in September 1988, EPA published its final UST rules establishing technical requirements for USTs.[24]

In short, prior to 1990 various offices of EPA, including OTS, OUST, OAR and the Office of Water were in communication and were aware of instances of groundwater contamination by MTBE. In addition, they were aware of the potential for wide-spread MTBE groundwater concerns because over a quarter million USTs nationwide were leaking. Further, EPA's concerns about MTBE in groundwater were clearly in the public domain several years before passage of the Clean Air Act in 1990.

Even in light of substantial information in its possession on water quality issues, EPA's concern for air quality and the implementation of the reformulated gasoline program nevertheless underscored its judgment to subsequently approve MTBE as an oxygenate authorized for use under the federal RFG program. The EPA was a fully informed decision maker when it authorized MTBE's use in response to the 1990 oxygenate requirements.

Question 4. Opponents note that MTBE was used in the gasoline pool prior to the adoption of the two-percent standard. Why was MTBE used at that time? At what levels was MTBE used prior to the adoption of the Clean Air Act Amendments of 1990? What was the environmental impact of this early use?

Hazardous Waste Bureau (July 31, 1987) (on file with TSCA Docket No. OPTS-42098, fiche No. 514711).

[16] *See* List of meeting attendees for August 5, 1987 Senate staff briefing (on file with TSCA Docket No. OPTS-42098, fiche No. 514469); Telephone communication between Elizabeth Anderson and Michael Shelnitz, Connecticut Department of Health and Human Services (November 18, 1997) (on file with TSCA Docket No. OPTS-42098, fiche No. 514756).

[17] Telephone communication between Elizabeth Anderson and George Domingues (December 14, 1987) (on file with TSCA Docket No. OPTS-42098, fiche No. 514760).

[18] Drinking Water; Substitution of Contaminants and Drinking Water Priority List of Additional Substances which May Require Regulation under the Safe Drinking Water Act, 53 Fed. Reg. 1892 (January 22, 1988).

[19] *Id.* at 1901.

[20] Testing Consent Order on Methyl Tert-Butyl Ether and Response to the Interagency Testing Committee, 53 Fed. Reg. 10,391, 10,392 (March 31, 1998).

[21] *Id.*

[22] EPA OUST, Cleanup of Releases from Petroleum USTs: Selected Technologies, EPA/530/UST-88/001, 10, 81-82 (April 1988).

[23] *See id.* at 85 (noting discovery of MTBE drinking water contamination in 2 communities).

[24] Underground Storage Tanks; Technical Requirements and State Program Approval; Final Rules, 53 Fed. Reg. 37082, (Sept. 23, 1988).

Answer 4. EPA issued a compulsory federal standard in 1973 that called for a phase down of lead in gasoline. Since 1979, EPA has authorized the use of MTBE as an octane-enhancing additive in fuels in furtherance of the federal mandate to remove lead from the gasoline pool.[25] MTBE was used increasingly throughout the 1980's to satisfy this requirement.

The next significant development relating to the use of MTBE occurred as a result of the Clean Air Act Amendments of 1990. The Amendments added two programs designed to significantly reduce carbon monoxide and ozone: the Oxyfuels[26] and reformulated gasoline (RFG) programs.[27] The Oxyfuels program required certain carbon monoxide nonattainment areas to use 2.7 percent oxygen by weight during the period of time when such areas are prone to high ambient levels of carbon monoxide. The Oxyfuels program is also known as the Wintertime Oxygen requirement.

Through the RFG program, Congress directed the EPA Administrator to promulgate regulations establishing requirements for cleaner burning fuel to be used in the nation's smoggiest cities. RFG "covered areas" included the nation's nine largest metropolitan areas with the most severe summertime ozone levels. In addition, any ozone nonattainment area reclassified as "Severe" would also become a covered area subject to the RFG mandate.[28] Congress directed that the oxygen content of RFG in such covered areas "equal or exceed 2.0 percent by weight... except as otherwise required by this chapter."[29]

Congress also prohibited the sale, beginning January 1, 1995, of any conventional gasoline in any RFG covered area.[30] In addition, Congress provided that, upon application by the Governor of a State, EPA could extend that same prohibition to "any area in the State classified... as a Marginal, Moderate, Serious, or Severe Area...."[31] These are referred to as "opt-in areas."

Following the passage of the 1990 Amendments, as Congress had predicted when it considered the oxygenate standard on the floor, MTBE use became widespread. In 2000, EPA determined that MTBE was the "primary oxygenate used by refiners to meet [the RFG] requirement."[32] Survey data published by EPA for the period 1995-1997 supported this conclusion, indicating that, in 19 RFG areas, MTBE accounted for more than 95% of the oxygen content used to meet the RFG requirements.[33] The success of the RFG program in improving air quality was widely recognized. In Congressional testimony in 1998, EPA opposed any change in the CAA oxygenate and RFG provisions, underscoring that the RFG program was achieving "substantial benefits—in reducing ozone precursors and toxics" and that "oxygenates provide a valuable tool to refiners in meeting the emission reduction requirements."[34]

MTBE was in use prior to 1990, and some groundwater detections were known to EPA (see answer to Question Three above). However, the substantial uptick in use of MTBE associated with the federal mandate in the 1990 Amendments accounted for MTBE detections at levels cited in recent litigation. According to a U.S. Geological Survey report examining hundreds of sites over a 12-state region, while the overall level of MTBE detections of concern is still extremely low, even these low levels of detections are correlated with the implementation of the federally-mandated two-percent oxygen standard:

> Only 0.8 percent of the randomly selected CWSs [community water systems] with MTBE data reported concentrations that equaled or exceeded the 20-ìg/L

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[25] Application for Methyl Tertiary Butyl Ether, Decision of the Administrator, 44 Fed. Reg. 12,242 (Mar. 6, 1979) ("ARCO" waiver for up to 7% by volume MTBE); *see also* Fuels and Fuel Additives; Waiver Decision, 53 Fed. Reg. 33,846 (Sept. 1, 1988) ("Sun" waiver for up to 15% by volume MTBE).

[26] 42 U.S.C. § 7545(m)(1).

[27] *Id.* § 7545(k)(10)(D).

[28] *Id.*

[29] *Id.* § 7545(k)(2)(B). EPA may waive this 2.0% standard, in whole or in part, but only if it determines that "compliance with such requirement would prevent or interfere with the attainment of the area of a primary or secondary ambient air quality standard." 42 U.S.C. § 7545(k)(2)(B).

[30] *Id.* § 7545(k)(5).

[31] *Id.* § 7545(k)(6).

[32] *See* Methyl Tertiary Butyl Ether (MTBE); Advance Notice of Intent to Initiate Rulemaking Under the Toxic Substances Control Act to Eliminate or Limit the Use of MTBE as a Fuel Additive in Gasoline; Advance Notice of Proposed Rulemaking, 65 Fed. Reg. 16, 094, 16, 095 (Mar. 24, 2000).

[33] *See* EPA, Oxygenate Type Analysis 1995 RFG Survey Data (Feb. 26, 1996) available at http://www.epa.gov/otaq/consumer/fuels/mtbe/oxy-type.pdf (last visited July 1, 2004).

[34] *On S. 1576 Before the Senate Comm. on Environment and Public Works*, 106th Cong. (1998) (statement of Margo Oge, Dir. Off. of Mobile Sources, Office of Air and Radiation, U.S. EPA) available at http://www.epa.gov/otaq/regs/fuels/congress/sep1698.pdf (last visited Dec. 16, 2004).

> lower limit of the USEPA's DWA for MTBE; 2 percent of the CWSs reported MTBE concentrations at or above the California 5-ig/L taste and odor threshold. The probability of MTBE detections at or above 1.0ig/L in drinking water was five times more likely ($p<0.0001$) to occur in those areas of the Northeast and Mid-Atlantic regions where it is used in substantial amounts under the oxygenated and reformulated fuels program.[35]

In conclusion, despite some historic MTBE usage associated with an earlier federal mandate to phase down lead in gasoline, only the 1990 mandates precipitated levels of detection that underlie current concerns.

Question 5. Can you tell the Subcommittee what effect regulatory compliance has had on the level of detections of MTBE? What efforts are used to address MTBE water-quality issues where they occur?

Answer 5. In recent years, the states have implemented Phase II underground storage tank compliance programs. At the same time, data has shown MTBE detection levels have been on a constant decline. The vast majority of detections are well below the taste and odor thresholds established by EPA's Consumer Advisory for MTBE. In fact, the Chairman of the EPA Blue Ribbon Panel on Oxygenates testified that, "the results of [water sampling] confirm that MTBE is detected in a relatively small number of water sources of those tested, and if those where it is tested, relatively few have levels above existing or proposed levels of concern." The New Jersey Department of Environmental Protection likewise reported that data from 400 of the state's public community drinking water supplies found no instance where MTBE approached New Jersey's drinking water standard for MTBE. The report concluded: "MTBE contamination is not currently a public health concern in New Jersey public drinking water supplies."

A further discussion of the underground storage tank (UST) regulatory program may place these issues in perspective:

Preventing leaks is the best way to avoid MTBE impacts. Tougher federal and state regulations and enforcement have led to significant reductions in petroleum tank releases.

- Leak detection and prevention are major elements of the UST regulations implementing the 1984—RCRA amendments.
  - The regulations set stringent requirements for USTs for proper installation, corrosion protection, spill protection, release detection, notification and recordkeeping.
  - Not only the tank itself, but also underground piping associated with the tank is—generally subject to these regulations.
  - Above-ground tanks are covered if at least 10% of the tank or its pipes is underground.
- In 2003 there were 60% fewer releases from all new tanks than the historic annual average. In FY04, the number of releases dropped to 7,800 from 12,000 in FY03.
- In FY04 the national compliance rate for release prevention was 77% and for leak detection was 72%.
- Many states have adopted regulations more stringent than the federal regulations.

Cleanup of petroleum tank sites and groundwater, through targeted federal and State efforts, has increased under the UST program and under the Brownfields program.

- EPA and the States have made significant progress in tank site cleanup.
  - 1.5 million tanks have been closed.
  - EPA estimates that over the life of the program, States have spent over $11 billion from LUST funds to cleanup more than 300,00 sites.
  - From 1988 to 2003, cleanup has been initiated at 92% of all confirmed tank releases and cleanup has been completed at 70% of all confirmed petroleum—tank releases.
- Additional petroleum-related cleanup is funded through the Brownfields program.
  - The 2002 Brownfields law requires that 25% of funds be targeted to petroleum site assessment and cleanup.
  - The President's FY 06 Budget provides $210 million for the Brownfields program, an increase of $47 million over FY 05 funding.

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[35] U.S. Department of the Interior, U.S. Geological Survey, *Occurrence and Distribution of MTBE and Other VOCs in [illegible]nking Water in the Northeast and Mid-Atlantic Regions of the United [illegible]* [illegible]nvestigations Report 00-4228 (2001) at 59.

As is evident, UST implementation is proceeding under the current legal and regulatory structure. MTBE detection levels have been stabilized and declining.

Question 6. During the hearing the members of the Subcommittee heard testimony regarding jury findings in the South Tahoe Public Utility District case. Could you provide information that places these findings in the appropriate context?

Answer 6. The South Tahoe Public Utility District case is frequently cited by opponents of limited liability protection. However, the case must be placed in context. First, the South Tahoe settlement is of no value as precedent, in California or anywhere else. California has a multi-stage complex torts system. In the first stage, the jury made a finding that found merit in the "design defect" theory. This controversial finding did not become the judgment of the court, because the case was settled.

If favorable terms for settlement could not have been reached, the jury's finding would have been challenged, and likely set aside as inconsistent with California law and precedent. The jury findings cannot be cited as precedent in other legal proceedings. In truth, there has never been a judgment of a court of competent jurisdiction in favor of the "design defect" theory for MTBE.

A. The Court never entered a judgment and a judgment would be necessary to even argue the case had any precedential effect.

B. The jury only reached a verdict on one of three phases of the trial and all phases needed to be complete to a judgment.

   1. The trial judge could have and likely would have overturned or modified the jury findings.
   2. Had the defendants not settled, the case would have certainly been appealed and likely overturned.

C. Even had a judgment on defective product been entered by the trial court and affirmed on appeal, it would have had no precedential value with regard to the design defect issue to most, if not all, litigants in future cases.

D. The fact that the South Tahoe jury reached a decision so contrary to the one reached by federal regulatory agencies and legislative bodies demonstrates the pressing need to correct the problem that will likely result from continued litigation on this issue. To not do so would implicitly result in industry being unable to reasonably rely on the conclusions, findings and mandates of the federal government.

E. Many other courts have considered the exact same issues presented to the Court in the South Tahoe case and concluded expressly and unequivocally that the issues presented to the jury in South Tahoe were not appropriate for jury consideration because the issues were pre-empted by the Clean Air Act and its implementation. To not give liability protection, would essentially be contrary and "overturn" these decisions.

   Similar types of federal preemption arguments were raised by oil companies, with varying degrees of success, in other lawsuits. In a class action filed against Chevron and Gulf, a New Jersey federal judge found the strict liability claims to be federally preempted, as the Clean Air Act required the use of an oxygenate and "MTBE was an oxygenate that Congress contemplated would be used frequently." Holten v. Chevron U.S.A., No. 00-4703 (AET) (D.N.J., July 8, 2001).

Second, the jury in South Tahoe itself made inconsistent findings. The jury made findings that MTBE producers could not use certain defenses because companies using MTBE were not "sophisticated users." On the other hand, the same jury found that those same companies were liable because they did possess the requisite knowledge of MTBE's effects. In short, both conclusions can't be true at the same time, and the findings would have been overturned by either the judge or an appellate court.

In a real sense, the South Tahoe case proves "defective product" theories—the only theories covered in the limited liability provision currently under consideration by Congress—are not needed. The South Tahoe jury also found that negligence theories obtained for those entities actually handling and storing the gasoline. Therefore, the South Tahoe case could have proceeded even without the design defect authority.

Very significant settlements were reached with companies who had leaking sites or releases for which they were responsible. So, an unquantifiable amount of the settlements was attributable to "release conduct" as opposed to manufacturer conduct. An MTBE limited liability provision would not jeopardize such results. That is, those who cause a release will always be liable to remediate and pay damages for harm they cause. The immunity does not change this law or result.

Complex "defective product" case could even delay relief. Allowing a contamination case to be sidetracked and morphed into a products-liability case does nothing to advance the remediation of the groundwater because industry will appeal the products liability findings, causing substantial delay in resolution of these cases. If anything the products liability claims frustrate the goal of groundwater remediation because of the inevitable appeals.

Further, regulatory agency oversight (federal, state and local) is frustrated by the products liability claims because these agencies lose control of the remedy process. These agencies are supposed to be in control of remedy design. When products liability claims are permitted, the plaintiff's motive becomes recovery of a large money judgment rather than a judgment mandating a remedy to be performed by the party who released the gasoline. This is a total perversion of the process intended by legislatures and Congress when they empowered regulatory agencies to protect groundwater and drinking water. The best example of this is the City of Santa Monica case, and to some degree the Tahoe case.

The other disastrous consequence is the double hit to those parties who have to expend resources to respond to regulatory agency mandates (designed to remediate groundwater), and who have to pay to settle products liability claims. Recipients of the products liability settlements are not required to spend these settlement dollars to remediate the groundwater, yet the party who paid the price of contaminating the groundwater (who may also face a products liability claim) still faces the regulatory liability to remediate it.

In short, despite numerous other cases, no jury has every found or been allowed to reach the question of design defect given the hand the federal government played in the design of the fuel in question. This lone jury finding proves the susceptibility of juries to being mislead in areas where emotions run high and is precisely why limited liability relief is needed.

Question 7. On the issue of boutique fuels, would repeal of the oxygenate requirement help alleviate the boutique fuels phenomenon?

Answer 7. The phenomenon of boutique fuels essentially arose out of a desire of certain nonattainment areas to achieve the air quality benefits of cleaner fuels while avoiding the cost or distribution patterns associated with reformulated gasoline's oxygenation requirement. Therefore, repeal of the two-percent oxygen requirement should address the root cause of the boutique fuels issue. As a result, NPRA supports removal of the two-percent oxygen requirement but remains unconvinced that further legislation targeted specifically at limiting boutique fuels is necessary or appropriate.

Legislation aimed at boutique-fuel limitations beyond repeal of the two-percent oxygen requirement may create unintended consequences that could undermine innovation or cost-control in fuels production. Local areas have different air quality needs that may require varied solutions. In some circumstances, local fuels reduce or avoid inefficient investment costs for refiners and can lower overall costs to consumers. Further changes in fuel specifications in the 2004-2010 time frame (when Tier II gasoline sulfur, highway and non-road diesel regulations, air toxics regulations, national ambient air quality standards and other stationary source requirements become effective) could add even greater uncertainty to transportation fuels market, however well-intentioned those changes might be.

QUESTIONS FROM HONORABLE JOHN D. DINGELL AND HONORABLE HILDA L. SOLIS

Question 1. In an interview on E&ETV news broadcast on Wednesday, February 16, 2005, you stated that the conference report on H.R. 6 "makes $800 million available for expedited cleanup of MTBE."

The conference report authorized $605 million a year for five years for various requirements in the Leaking Underground Storage Tank (LUST) program of which $200 million annually was authorized for MTBE cleanup. An authorization, however, is very different than an appropriation and it makes no money actually available for cleanup.

Answer 1. In response to Question 1, we are aware of the observations you make, however we would make the following observations:

As of September 2003, the LUST fund had accumulated approximately $2.1 billion in funds. Each year, Congress sees fit to appropriate approximately $70 million to operate the LUST program. EPA allocates about 80% to States for their cleanup programs, and about 20% to administer the program and conduct cleanups in Indian country.

Through the program funding, EPA and the States have made significant progress in tank site cleanup. EPA estimates that over the life of the program, States have spent over $11 billion from LUST funds to cleanup more than 300,000 sites. 1.5 million tanks have been closed. From 1988 to 2003, cleanup has been completed at 70% of all confirmed petroleum—tank releases and—cleanup has been initiated at 92% of all confirmed tank releases. In 2003 there were 60% fewer releases from all new tanks than the historic annual average. Of all tank releases, about 70% are petroleum-related tanks. EPA and the States are implementing measures to achieve faster site cleanup. Continued full funding of the UST program will ensure continued success in cleaning up sites.

Additional petroleum-related cleanup is funded through the Brownfields program. The President's FY 06 Budget provides $210 million for the Brownfields program, an increase of $47 million over FY 05 funding. Was Congress to adopt that increase in Brownfields funding, funding for petroleum-related cleanup would correspondingly increase by 25%.

With regard to the action taken in the H.R. 6 Conference Report, the authorization of funds targeted for MTBE clean-up is as you described. While we are aware that authorization does not guarantee appropriation, the adoption of the Conference Report sends an unmistakable signal of Congressional support for a significant targeting of resources at MTBE clean up. Without adoption of comprehensive energy legislation, this funding increase will go unauthorized, and a critical step in assigning resources to alleged MTBE problems will be missed.

Question 2. The Leaking Underground Storage Tank (LUST) Trust Fund is financed by a 0.1 cent per gallon tax on motor fuels that will expire after March 31, 2005. Does the National Petrochemical and Refiners Association support the extension of this tax on motor fuels and, if so, for how long a period of time?

Answer 2. It is our understanding that the tax upon which the leaking underground storage tank (LUST) fund is based was extended by the House of Representatives under suspension on March 16, 2005. The following day, the Senate approved the bill (H.R. 1270) under unanimous consent. NPRA has endorsed comprehensive energy legislation that includes significant authorization of LUST funds to address MTBE clean-ups.

Question 3. In the news interview on February 16, 2005, you also stated that the "whole system of responsible parties take care of 95 percent of these costs" referring to the costs of cleaning up sites contaminated by leaking tanks. At the Subcommittee hearing on February 16, 2005, you testified that "96 percent will be paid for by responsible parties."

Answer 3. In response to Question 3, we are aware of the observations you make, however we would make the following observations:

The notion underlying the interviews you cite deals with the appropriate mechanism to address so called "orphan sites," where no solvent party will take responsibility for cleanup. EPA estimates that these sites account for only 4% of the total UST sites, meaning that 96% of sites are otherwise addressed under the UST system.

The UST program, like many other environmental programs, is based on a working relationship between the federal government and States. 32 states have been granted authority to regulate USTs in lieu of the federal program.

All 50 States have entered into a cooperative agreement with EPA, incorporating the federal legal requirements for establishing a State LUST program and establishing a channel for the State to receive LUST funds. States may use LUST program funds to hire staff for cleanup efforts, undertake emergency cleanup efforts, and perform cleanup of abandoned UST sites.

In expending LUST funds for corrective action or enforcement, States must recover those costs from owners and operators of tanks. SWDA § 9003(h)(6). This ensures that LUST funds are reserved for cleaning up sites where no solvent party liable for the cleanup can be found. The program is devised to prevent depletion of the nationally funded LUST account where liability resides with private parties.

Under RCRA regulations, petroleum tank owners and operators must demonstrate they are financially capable of cleaning up any releases that may occur. 40 C.F.R. 280.93. This requirement guarantees ready access to funding to take corrective action and prevent or address environmental impacts in the event of a tank release or similar event.

Congress has not imposed on States any one method of implementing the financial responsibility requirement. SWDA § 9003(d). States have developed a wide range of successful strategies to assist tank owners in meeting this requirement. Some States require tank owners to have private insurance. Other States (as many as 47 at one point) have established a State assurance fund, which assures that cleanup will be fully funded. In some states, the assurance fund operates somewhat like private insurance, providing tank owners with the financial backing necessary to fund corrective action, sometimes with a deductible assessed to the tank owner responsible for the tank release.

There is wide variation in how States manage, derive revenue for, oversee and enforce their funds. Most typically, fund revenue is derived from tank fees assessed on tank owners, a tax on fuels, or a combination of the two. Over the life of any State fund, a State may make legislative and regulatory improvements to the operation of the fund. Many States are now engaged in program revisions. Some States have decided to replace the assurance fund with some other mechanism that satisfies federal requirements and also meets the needs of the particular State.

State assurance funds have proved very useful in guaranteeing the availability of resources to clean up sites and prevent or mitigate environmental harm. States have widely different measures to finance corrective action and have recorded widely different experiences with those measures. Over the course of the UST program, EPA and others have compared State programs and analyzed the overall success of the UST program. States have reported a wide range of efforts, some very successful and others wanting for improvement. EPA's Office of Underground Storage Tanks is in the process of surveying States to assess the experience of the States with assurance funds. EPA expects to conduct the survey in Spring 2005 with results reported in Fall 2005.

Some States routinely build sunset provisions into their programs, as a tool to ensure that the legislature or the implementing agency has the opportunity to review a program and affirmatively decide whether to amend it, replace it or continue it. Often the governing State body decides, upon sunset of an existing program, to replace it with a more effective program that has been tested with success in a different state or in a different State agency. Perhaps equally as often, a State determines that revisions are appropriate and then acts to make those revisions. A sunset provision may also reflect the deliberate decision by the State to operate a program temporarily, until a more effective approach can be developed and deployed.

State approaches vary and it is impossible to know, without studying the specific State example and fully understanding the immediate circumstances in the State, why a State may be sunsetting a program or what subsequent action it may take regarding the program. It is equally impossible to extrapolate any governing principle from the fact alone that some State programs include a sunset provision.

The Honorable John D. Dingell:

You have raised a number of questions regarding the status of permitting for new refinery construction in Arizona. As a preliminary matter, we would offer the following observations regarding the timeline:

1. Maricopa Refining Company (MRC) was issued an "Installation Permit" for a 50,000 BPD refinery by the ADEQ on January 16, 1992.
2. MRC (under the name of Arizona Clean Fuels-ACF) continued development of its refinery project in the early and mid-nineties. A significant financial investor left the project. The project was re-scoped as to refinery capacity and feedstock. The above permit was allowed to lapse and a new permit for a larger facility was submitted to ADEQ on December 23, 1999.
3. The ADEQ hired an outside contractor to prepare the permit. This contractor worked with ACF, ACF's contractor and the ADEQ to perform the BACT reviews, etc. required by the Clean Air Act. In September 2002, the above parties agreed that the information required to perform all of the permit reviews was complete and the ADEQ confirmed this on September 4, 2002.
4. During the summer of 2003, the EPA and ADEQ declared an expansion of the ozone non-attainment area in Maricopa County that included the site of the proposed refinery. ACF advised the ADEQ that it was considering alternate sites for the refinery outside Maricopa County.
5. On October 30, 2003, the ADEQ issued a proposed Draft Air Permit to the company only, for the refinery based on the December 1999 application and the Maricopa County site. This permit was not formally issued pending decision by ACF on location.
6. In October 2003, ACF advised the ADEQ that the company was proposing a new site for the refinery in Yuma County and the information required to revise the permit for the new location was submitted during the November 2003 to March 2004 period. This information was consolidated into a "new permit application" document that was submitted to ADEQ on June 28, 2004. The refinery facility was identical to that proposed in 1999 so the BACT analysis remained valid. Revisions required for the new site consisted primarily of new air emission impact modeling
7. The ADEQ issued the Draft Air Permit on September 14, 2004. Public meetings and hearings were held during October and November 2004 with the public notice period closing on January 10, 2005.
8. The permit is currently in review by the EPA with a formal response required by March 18, 2005

As a general matter, the refining industry has successfully gone through a major effort over the past decade to respond to changes in product fuel quality mandated by Clean Fuels requirements. During this time, the industry has met the growing domestic demand for petroleum products by limited capacity expansions of existing refineries, and by imports. No new refineries have been built in the U.S. in over twenty years and product imports have reached over 2 million barrels per day. Economic growth in other countries has reduced the availability of products to U.S. consumers and increased competition for imports. Recent petroleum product prices have reached and sustained record highs, driven by a growing shortfall in supply. There are a number of reasons that this shortfall is a major concern for the U.S., most of which have been documented in abundance recently in the press. It is perhaps sufficient to state that shortfalls create economic hardship and slow the economy. It is also a strategic issue for the U.S. to grow imports and increase the threat of shortages and embargos.

One of the major solutions to this growing shortfall is to provide additional domestic refining capacity.

The problems and impediments preventing the growth and investment for new refining capacity in the U.S. are significant. Despite this, a new refinery project, the Arizona Clean Fuels (ACF) project, has been proposed and will be completing engineering design consistent with the final Air Permit expected to be issued later this year. This project will be used below to highlight specific costs and permitting requirements.

New Refinery Construction Considerations

There are four general areas of consideration that drive the feasibility and timing of new refining projects:

1. Overall Project economics driven by product values, feedstock costs, and operating costs,
2. Technology choices driven by crude slate, target product mix, legislated and target product quality requirements (and projected changes)—a lengthy process of project development, engineering and construction,
3. Public Acceptance—significant reluctance in most areas of the U.S. to allow a new refinery "in my back yard". Public communication and hearings processes are lengthy and often confrontational,
4. Permitting processes for environmental permits, access permits, construction permits and zoning, etc.—driven by federal, state, and local legislation and zoning.

Refining Economics

Historical refining margins in the U.S. have, on average and in general, not been adequate to support new refinery construction. Returns on Capital Employed have been in the 5% to 7% range. Capacity expansions and modifications have been economic due to leverage on base infrastructure and facility investments.

Refinery sales transactions over the past ten years have, on average, been at about 25% of the cost of new-build facilities. Condition of the plants, local markets, and a company's perspective on future cash flows drive the valuation process. These facilities often require significant additional investment to ensure reliable operation and compliance with regulatory requirements.

Refineries are by their nature very costly facilities. The proposed ACF refinery which will produce about 150,000 barrels per day of gasoline, diesel, and jet fuel products, will cost over $2 billion with an additional $500 million required for crude oil and product pipelines. Rapidly growing demand for petroleum products in the southwestern U.S. makes this project economic.

Technology Choices

The refining industry is not traditionally viewed as "high tech". However, the need for high quality products and significant flexibility to process wide ranges of crude oils, and the need to implement state-of-the-art environmental controls, has led to the development of very sophisticated processes. There are several process licensors and choices for each type of facility that a refiner needs. Also, due to the high cost of each process facility, extensive studies and comparisons are required to match a refiner's products and processing objectives.

One area where the industry has led in major technology developments is in the "Best Available Control Technology" for emissions as defined in and required by the Clean Air Act. Every refinery modification and new process unit has required the development and application of specific control technology.

The development of the Arizona Clean Fuels project included an extensive analysis of emission sources and inclusion of the Best Available Control Technology. This will be the first refinery where all sources will be addressed at the same time in this manner.

Public Acceptance

A major hurdle to the construction of a new oil refinery is to overcome the historic public perceptions of oil refineries and to obtain public acceptance. Generally, the public has a "not in my back yard" attitude to oil refineries. Certainly, refineries of the past have, to some extent, earned this reaction from the public. Modern facilities have overcome the shortcomings of these previous refineries. The refining industry has developed and implemented emissions controls, operating practices, and outreach programs to address the concerns of both government agencies and the public. Certainly these programs and projects have increased costs, but have been viewed by the industry as necessary.

Refineries have significant benefit to the public by generation of both direct and indirect jobs and economic activity. Local communities can benefit significantly from the operation of a refinery.

A new refinery, such as the Arizona Clean Fuels project, with the control and monitoring required by current regulations will have minimal impact on the surrounding environment. The proposed locations in Yuma County, Arizona, are remote from population concentrations. The project has gained support from local politicians and business leaders.

Permitting Processes

Certainly the most-often noted issue in new refinery construction is that of the extensive permitting that is required. Generally, permits are required from multiple agencies at the federal, state and local levels. Also permits are required not only for the refinery but also for pipeline and utility services to and from the site. The permitting processes are lengthy and costly. Project developers are also not in control of the pace and timing of permit review and issue and this uncertainty can lead to project delays and cost escalation.

The most extensive and important permit is often the "Air Permit" that is usually issued by the relevant state agency and outlines all requirements for compliance to the Clean Air Act and New Source Performance Standards with emission levels, reporting and Best Available Control Technology requirements. The extensive scope of this permit requires detailed air modeling, technical review of all facilities, and agreement on the Best Available Control Technology. For example, the Arizona Clean Fuels permit application was submitted to the Arizona Department of Environmental Quality on December 22, 1999, and a Draft Permit issued on October 10, 2003—a time period of almost four years. In response to the declaration of large portions of Maricopa County as a "Non-Attainment Zone" for federal Ozone standards in the summer of 2003, the proposed refinery was moved to a site in Yuma County and a revision to this Draft Permit is still pending. Following its proposal, reviews, public hearings, and final permit drafting will take several months.

Fortunately, some other federal and state agencies review and comment on the permit and project coincident with the preparation of the Air Permit. For example the EPA, the U.S. Forest Service and the National Park Service will be consulted by ADEQ. However, all of these agencies have seen increased demands on their time and reviews don't always meet the expected timeframes thereby extending the permitting schedule. In the western United States, for example, EPA Region IX encompasses the most dramatic growth seen anywhere in the country. However, large projects that would support and provide jobs for that growing population can be held up for years by the air permitting process alone. This Regional EPA office has a limited number of technical staff members who must review and approve the air permits for every project in California, Nevada, Arizona, Hawaii, and Guam. Similarly, the National Park Service, Bureau of Land Management, and U.S. Forest Service must compete for the services of only a few federal staff members who have the technical expertise and responsibility to review all proposed major source air permits for projects across the entire western half of the country. This coupled with the lack of regulated or recommended timing requirements for permit issue leads to significant delays. Finally, although industry recognizes the statutory requirement for these agencies to ensure compliance with all regulations, there often appears to be more attention paid to the concerns of a small minority of constituents rather than a balanced review.

Although the Air Permit is one of the most important permits for any project, there are many other rigorous permits that must be obtained for both refinery and pipeline projects from a multitude of agencies. For example:

- NEPA ([illegible] pliance from a controlling agency such as the Bureau of Land Manage- [illegible]
- L [illegible] lling agencies and jurisdictions
- [illegible] Act Compliance

- Access permits from Bureau of Land Management, U.S. Army Corps of Engineers, and State Land Commissions as well as private land owners.
- Military Agency approvals if military facilities involved.

A listing of permits required by the Arizona Clean Fuels refinery and pipeline projects shows about thirty permits required excluding local zoning, access and construction permits. The majority of these permits are not initiated until the Air Permit is issued, since it finalizes the basis for the project. The timing of these can be extensive and is estimated to be about eighteen to twenty-four months. Although design engineering can be done in parallel to these permitting activities, no significant construction can begin until they are in place. Construction of a large refinery such as ACF proposes takes about three years. This sequential process results in long lead times for project development and completion.

Indisputably, the refining industry in the U.S. has not constructed a new grass roots refinery for over twenty years. Refining economics have generally not supported new refinery costs and the industry has focused on expansions of existing refineries. Major investments in Clean Fuels production and regulatory programs have also absorbed much of the industry capital. The total capital cost of an economically-sized facility of about 150,000 barrels per day is approaching $3 billion.

The complexity of the refining processes and technology choices results in lengthy project development times which can be one to two years. Following this project definition, corporate strategic decisions, public reviews, local government discussions, and multi-level permitting process typically take four to five years before a final "go-decision" can be made. Engineering and construction on a significant project is a major undertaking and takes three to four years. Total project time from inception to startup is in the order of ten years.

The massive investments required for development of a new refinery project coupled with uncertainty on timing and final approval of permits, issues of public acceptance and market uncertainty in the future, have deterred the refining industry from new projects.

Some efficiencies may be possible in the overall development timing. Internal corporate engineering and construction efficiencies may reduce overall project timing. Reducing the number of agencies involved in major project permitting through the "lead agency" approach and ensuring internal accountability for permit issue timing could reduce time and workload on all agencies involved.

CONSUMER ENERGY COUNCIL OF AMERICA
WASHINGTON, DC
March 22, 2005

The Honorable RALPH M. HALL
Chairman
House Energy and Air Quality Subcommittee
Energy and Commerce Committee
U.S. House of Representatives
Washington, DC 20515

DEAR MR. CHAIRMAN: The Consumer Energy Council of America (CECA) sincerely appreciates the opportunity to comment on the Energy Policy Act of 2005 per your letter of March 4, 2005.

The Consumer Energy Council of America develops, promotes, and communicates practical solutions that ensure reliable, affordable, and environmentally responsible energy for the nation's consumers. CECA acts as a bridge among the energy industry, government, and the public interest sector. CECA works to build consensus on energy policies with a focus on the bottom-line costs and benefits to consumers. Founded in 1973, CECA is a leading national resource of information, analysis and technical expertise on the social and economic impact of energy policies.

In November, 2003 CECA launched its Transmission Infrastructure Forum in which over 60 transmission experts gathered to deliberate on transmission issues of critical importance to consumers. The Transmission Infrastructure Forum concluded its consensus process in January, 2005 and issued a report, *Keeping the Power Flowing: Ensuring a Strong Transmission System to Support Consumer Needs for Cost-Effectiveness, Security and Reliability*. Included in that report are several public policy recommendations that urge Congress, FERC, the states and the electric industry to act so that consumers will be assured of a robust electric power system to meet their demands in the years to come. The answers provided here represent the consensus of the members of the CECA Forum and are not representations of the specific viewpoints of any individual participant in the CECA Transmission Infrastructure Forum.

Attached are the CECA Forum's responses to your questions. I would be happy to discuss any further issues with you.

Sincerely,

MARGARET A. WELSH
Senior Vice President

Attachments

RESPONSE TO QUESTIONS FROM CHAIRMAN RALPH M. HALL

Question 1. What specific policies should Congress include in the Energy Policy Act of 2005 that are not in it now? Why?

Response: The Consumer Energy Council of America's Transmission Infrastructure Forum (CECA Forum), whose recommendations were released in January 2005, supports many of the provisions of Title XII of the Energy Policy Act of 2005. There are a few issues which the CECA Forum addressed that are not included in the bill and, as such, the CECA Forum recommends that the following policies be considered for inclusion in any final legislation:

Consumer Education: The CECA Forum recommends that the Federal Energy Regulatory Commission (FERC), the U.S. Department of Energy (DOE), and state decision makers should undertake efforts to educate policymakers and the public, including local and municipal officials and electric consumers generally, about the critical role that the transmission system plays in ensuring that consumers are supplied with reliable power at the lowest cost. Congress may want to consider adding language to the Energy Policy Act of 2005 that grants additional funds to DOE and/or FERC to accomplish this important goal. CECA's research demonstrates that effective public participation early in the planning process enhances public acceptance of infrastructure projects, resulting in positive decisions and often avoiding litigation and delays that can lead to higher costs for consumers.

Consumer Input into the Regional Transmission Process: The CECA Forum recommends that FERC, state utility regulators, and the entities responsible for transmission planning should require that regional transmission planning processes provide consumers with an opportunity to participate in the early stages and throughout the transmission planning process so that their input will be most effective. Congress may want to consider adding language to the Energy Policy Act of 2005 that grants additional funds to states to ensure adequate funding of state consumer advocate offices to help accomplish this goal.

National Security: The CECA Forum recommends that the U.S. Department of Homeland Security (DHS) and DOE, in conjunction with regional transmission planning entities, expedite and coordinate ongoing efforts to include national security or physical and cyber-security considerations in their planning for transmission. Congress may want to consider adding language to the Energy Policy Act of 2005 that provides funding to DHS and DOE to accomplish this goal.

National Power Survey: The CECA Forum recommends that DOE, in coordination with regional planning entities and other experts, undertake a periodic (e.g. every 10 years) National Power Survey—similar to those conducted in the past—to facilitate regional transmission planning processes that form the basis for developing future transmission plans and policies to meet consumers' electricity needs. Congress may want to consider revising the language in the Energy Policy Act of 2005 regarding DOE reporting requirements to include this objective and ensure that funds are available to accomplish the Survey.

Question 2. What specific policies in the Energy Policy Act of 2005 should be deleted? Why?

Response: The CECA Forum recommends that Congress delete the language in the Energy Policy Act of 2005 calling for "participant funding" as the mandated national cost allocation mechanism and further recommends that no other specific cost allocation methodology be included in legislation.

The CECA Forum recommends that it is within the purview of FERC under its existing authority and state utility regulators to establish clearly defined rules for allocating costs in order to facilitate investment in both reliability upgrades and economic upgrades where the long term benefits to consumers have been demonstrated. The CECA Forum believes that any cost allocation process established by FERC and the states should 1.) Recognize regional differences; 2.) Take into account that beneficiaries change over time; and 3.) Ensure that existing consumers are not allocated unreasonable costs where the industry structure is changing (i.e. a region is moving from a regula[illegible] market to an organized market with a Regional Transmission Organization [R[illegible]).

Question 3. [illegible]at specific policies should be modified in the Energy Policy Act of 2005? H[illegible]uld they be modified?

Response: The CECA Forum supports language that provides the North American Electric Reliability Council (NERC) or a similar independent "Electric Reliability Organization" (ERO) the authority to set and enforce mandatory reliability standards, including the ability to impose monetary or other meaningful penalties for violations of such reliability criteria as stipulated in the Energy Policy Act of 2005. However, the CECA Forum recommends Congress should go further in strengthening such reliability standards by providing NERC or the ERO with the authority to publish via appropriate media all instances of non-compliance with mandatory reliability standards. The CECA Forum believes that publication of the violations and the monetary penalties levied to the violator for such non-compliance will further encourage compliance with the standards.

The CECA Forum believes that it is urgent that Congress establish a new ERO and recommends that if Congress does not pass the Energy Policy Act of 2005 this year, it is imperative that stand-alone legislation be passed that give NERC the authority or establishes the ERO with the requisite authority needed so that consumers can be assured the nation's transmission system remains reliable.

The CECA Forum recommends that the Energy Policy Act of 2005 be amended by modifying the language which assesses dues, fees, or other charges to end users to fund the ERO. To ensure the independence and effectiveness of the ERO, the CECA Forum recommends that the ERO be funded by all users of the bulk power system on a fair and equitable basis. The CECA Forum further recommends that the legislation should include language stipulating that the reasonableness of such costs should be reviewed by FERC through a transparent process that involves public participation.

Question 4. The CECA report "*Keeping the Power Flowing*" makes numerous recommendations for FERC action. Of these, which recommendations do you believe require direction from Congress for FERC to achieve them?

Response: When the members of the CECA Forum developed the recommendations for FERC action, it was with the understanding that the recommended actions could be accomplished with existing FERC authority under the Federal Power Act. However, as noted below in response to Question #6, the CECA Forum recommends that Congress clarify the role of FERC with regard to its jurisdiction on transmission planning and siting.

Question 5. Does CECA have any specific recommendations to improve transmission security? Please describe them.

Response: National security implications are a great concern for consumers. The CECA Forum concluded that the transmission system is operating at the limits of its technical abilities and, as such, may at times be less able to respond to a national security threat. The CECA Forum recognizes that robust regional transmission planning is critical to ensuring the nation's security. Regional transmission planning should take into account the need to invest in the system to ensure its ability to be able to respond flexibly to changing circumstances and changing consumer demands on the system. For example, the CECA Forum recognizes the need to invest in such areas as improving inventories of transformers and other critical equipment (i.e. maintaining adequate inventories of transformer equipment at readily available locations), investment in improved system monitoring systems (i.e. SCADA system elements), adding technologies to the transmission system that enable the grid to be operated reliably closer to its technical limits, and possibly by increasing system transfer capability. Additionally, changes in practice with respect to the availability of system data may be required to help protect against possible cyber attack

Further, consumers are dependent on an array of interdependent infrastructure services that rely on electric power delivery. If the transmission system fails due to natural or terrorist attack, the infrastructure services consumers depend upon would be compromised, possibly for extended periods of time. The CECA Forum therefore believes that coordination of information among the various infrastructure systems that rely on electricity is needed.

Question 6. Please describe the jurisdictional issues between Federal and state regulators that must be resolved (mentioned in the CECA report), and how would you propose they be resolved?

Response: The members of the CECA Transmission Infrastructure Forum found that investment in the U.S. transmission system has been on an overall national downward trend (though some regions and some individual companies are increasing their efforts to provide investment in the system). This overall downward trend has resulted from a number of factors, including the uncertainty about what the regulatory "rules of the road" will be for investors going forward.

Therefore, the CECA Forum recommends that: (1) FERC be given oversight authority to enforce reliability standards established and implemented by NERC or the new ERO either through comprehensive energy legislation or through stand-alone reliability legislation, as discussed in CECA's answer to Question #3; (2) With regard to transmission planning, regional planning processes should address both reliability upgrades and economic upgrades where the long term benefits to consumers have been demonstrated; (3) In recognition of the unique characteristics of each region of the nation, Congress should not mandate FERC to require the establishment of RTOs, but allow FERC the flexibility to work in cooperation with the states to identify and implement the institutional structures appropriate to each region; (4); and Under its existing authority, FERC should work with state utility regulators to clearly define cost recovery and cost allocation policies at both the wholesale and retail level.

While there are different views among the CECA Forum's members on the further specifics of FERC's role with regard to transmission planning and siting, there is general agreement that a reduction in regulatory uncertainty would remove a critical barrier to transmission investment and would benefit consumers.

Question 7. What clear cost allocation and recovery policies would you propose? Why? Are the policies for the Congress to enact or FERC to implement, or both?

Response: The CECA Forum does not believe Congress should mandate national cost recovery or cost allocation policies. Rather, we recommend that cost recovery mechanisms and methodologies be within the purview of FERC under its existing authority and the states and, where appropriate, in cooperation with the RTOs. The CECA Forum recommends that any cost recovery methodology employed or mandated by FERC or the states should be based on a durable regulatory framework so investors in transmission are provided a reasonable opportunity to recover prudently incurred costs and expenditures associates with owning, operating and maintaining the transmission system. Such a framework is designed to produce clear benefits for consumers, while ensuring just and reasonable rates for consumers. The members of the CECA Transmission Infrastructure Forum spent a great deal of time deliberating cost issues, but purposely did not formulate consensus around any one specific cost recovery or cost allocation methodology in recognition of regional market and industry structure differences.

Question 8. The Energy Policy Act of 2005 includes a provision for Federal backstop authority for transmission siting through FERC. Should this authority also include a requirement for FERC to consider new or advanced technologies?

Response: The CECA Forum does not take a position on amendments to Section 216 of the Federal Power Act to grant FERC backstop siting authority for siting transmission facilities if the state fails to act or lacks authority. The CECA Forum does recommend that the Energy Policy Act of 2005 include legislative language that directs federal land management agencies to simplify, clarify and set strict time limits for the siting process for transmission facilities on federal lands.

The CECA Forum recommends that Congress have as a key element of the Energy Policy Act of 2005 the long-term commitment to fund research, development, demonstration and deployment (RDD&D) of advanced transmission and related technologies. The CECA Forum's recommendations with regard to transmission RDD&D are not prescriptive as to whether such funding should be coupled with other requirements in the legislation.

The CECA Forum further recommends that if Congress affects energy policy through the use of tax credits and subsidies for the advancement of various technologies, it should make available such credits or subsides to all for-profit and not-for-profit entities on a comparable basis.

Question 9. The CECA report *"Keeping the Power Flowing"* recommends greater public/private cooperation to develop and deploy advanced transmission technologies. Would you recommend a program similar to the Clean Air Coal Program (Title IV) to promote these technologies?

Response: The CECA Forum examined the many transmission-related advanced technologies that can reduce stress on the grid and enhance the performance of the transmission system if deployed within the next decade. The study included a review of technologies that, if implemented, will enable increased system throughput, allow operation of the system to perform closer to its technical limits, reduce load at critical times, permit more reliable operation of aged equipment and reduce transmission design and construction costs.

For the promise of advanced technologies to deliver benefits to consumers, the CECA Forum recommends that Congress make a long term commitment to adequately fund RDD&D of advanced transmission and related technologies and to work with the private sector on jointly funding these initiatives. The CECA Forum, therefore. would [illegible]t a strong provision in the Energy Policy Act of 2005 that [illegible] transmission technologies and we would be privileged to work with you and your staff on the specific legislative language that addresses this issue.

FOLLOW UP QUESTIONS FROM THE HONORABLE RALPH M. HALL TO JOHN KANE, NUCLEAR ENERGY INSTITUTE

Question 1. Can existing (or new) nuclear facilities also be used to cleanly make hydrogen during off-peak hours? Is legislation needed to accomplish this? What is needed?

Answer: Existing and new nuclear power facilities can be used to produce hydrogen through the well understood process of electrolysis. This can be accomplished by using proven and commercially available technology. Such technology is currently the subject of extensive research and development and is rapidly becoming more affordable and efficient. Moreover, nuclear plant operators have extensive experience in handling and using large quantities of hydrogen because it is routinely used in plant operations.

In essence, a company could initiate production by acquiring a commercial electrolyzer, compressor, storage and dispenser system. This system would have a very small footprint and could be supplemented by additional units if production requirements increased. The resultant product stream would be pure hydrogen and pure oxygen. Unlike hydrogen produced from fossil fuels, hydrogen produced with nuclear electricity does not need purification. Because electrolyzers function best when run on a continuous basis, it is most efficient to do so. That being said, electricity requirements for hydrogen production on a limited scale are such that continuous operation would not pose a burden on electricity production. It should be noted, however, that efforts to produce large quantities of hydrogen involves an inherent trade-off in electricity production. Electricity diverted to hydrogen production will not be available for grid applications and therefore decisions to do so need to be balanced against electricity price and demand.

Advanced Generation IV nuclear plants, once fielded, will be able to reach increased hydrogen production efficiencies. This will be possible through high temperature electrolysis or the thermo-chemical water splitting cycle. If the transition to a hydrogen economy is realized, hydrogen specific production reactors may need to be considered.

We believe that legislation will most likely be needed to facilitate a licensing process that will allow a company to collocate a full scale hydrogen cogeneration facility at or near a nuclear plant. We would like to work with the Committee in providing language to ensure that this type of facility can be effectively and efficiently developed.

Question 2. Some perceive a conflict of interest in the selection of Wackenhut Corporation to provide the adversary force for the force-on-force tests of nuclear power plant security. Please explain why the integrity of those tests will not be undermined.

Answer: The nuclear industry strongly believes that the integrity of the force-on-force tests will not be undermined by the selection of Wackenhut Corporation to provide the adversarial force used in those tests. The constant oversight by the Nuclear Regulatory Commission of the force-on-force exercises assures that this portion of the security programs in place at nuclear power plants will accomplish its purpose—to identify what steps, if any, nuclear power plant security forces can take to improve their ability to repel attackers. The NRC is responsible for reviewing the initial industry programs developed to meet the agency's requirements, for overseeing the day-to-day implementation of the program and for taking enforcement actions as necessary to ensure all requirements are met.

Perhaps most importantly, the adversary force does not evaluate the exercise—only the NRC does. In fact, the NRC assesses the performance of the adversary force in addition to the plant's defensive response. If the adversary forces do not measure up to the NRC exacting standards, the agency will require Wackenhut to replace individuals on the team.

The NRC also oversees the way that the adversary teams are selected and trained. The NRC has established a new performance-based standard specifically for this program. Regardless of whether the adversary forces themselves consist of personnel from Wackenhut or any other entity, they have to perform to standards set by the NRC. The adversary team members will be thoroughly trained and must meet physical fitness requirements and demonstrate weapons proficiency standards, including expertise in the use of state-of-the-art MILES laser based weaponry. Members of the two adversary teams must commit for at least two years, but serve no more than three.

The parties participating in this program for Wackenhut are U.S. citizens with NRC safeguards clearances. All participants, both in program management and participants in the exercises, must sign non-disclosure agreements for which they are subject to termination if they fail to comply. Employees recruited from nuclear power plant sites will not participate in force-on-force exercises at their own plant. Also, team leaders who may have assessed security at plants in previous positions will not be team leaders for the force-on-force drills at those plants. Who can better test the abilities or our defenses than the people who understand the capabilities and tactics of the guard force? And, those personnel have vested interest in being put to the test so they can fix any deficiency before it becomes real.

Our nation's nuclear power plants are already the most secure commercially-owned sites in our nation. Since the events of September 11th, we have increased our security officer force from 5,000 to over 8,000 professionals. The already strong security at our plants has been increased by additional physical barriers, upgraded plant access and intruder detection technology, expanded perimeters and increased background checks on our employees. The industry has invested over $1.2 billion in these improvements. We recognize that a strong, NRC-supervised program to test these defenses is in our best interests as well as the nation's best interests.

Question 3. You testify that a limited number of loan guarantees would be needed to build the next generation of nuclear plants. To what level would a new plant loan need to be guaranteed? 100%? How many plants would need to be built before loan guarantees would not be needed? Do you think concerns about loan defaults are warranted? If not, why not? You stated that companies will need a combination of financing tools and tax incentives. Why isn't it possible to provide one generic solution industry-wide?

General Answer: Federal loan guarantees are one of the forms of federal investment stimulus judged necessary to encourage private sector investment in new nuclear power plants. It is not the only such investment stimulus necessary.

We believe that the private sector and the federal government must work together to develop an integrated package of financial incentives to stimulate construction of new nuclear power plants. Any such package must address a number of factors, including the licensing/regulatory risks; the investment risks; and the issues that make it difficult for companies to undertake capital-intensive projects such as, earnings dilution during construction with no accretion to earnings during the first years of operation and a lengthy period for recovery of capital investment under existing tax depreciation rules.

Such a cooperative industry/government financing program is a necessary and appropriate investment in U.S. energy security.

It is also clear that no single set of financial incentives works equally well for all companies because of differences in company-specific business attributes or differences in regulatory status. Specifically, some companies may build new nuclear plants as unregulated merchant plants, where others may build them as regulated rate-base projects. As a result, federal government policy to stimulate investment in new nuclear power plants should provide a broad-based set of incentives, acceptable to the financial community, allowing companies to select the ones that best suit their particular business conditions and requirements.

Construction of the first several new nuclear plants represents a unique set of risks to the "first movers" that will build them. Given the delays and resulting cost overruns experienced by some of the plants built and licensed in the 1980s and 1990s, industry and the financial community remain concerned about regulatory and licensing risks. Specifically, these would be delays and increased costs during construction or in achieving commercial operation caused by unnecessary delays at NRC or unfounded court intervention in NRC decisions. To mitigate these risks and ensure access to debt and equity capital, companies considering construction of the first several new nuclear plants (and the investors providing the debt and equity capital) will require financial incentives to achieve financing on reasonable terms.

The financing challenges apply largely to the first few plants in any series of new nuclear reactors. As investors gain confidence that the licensing process operates as intended and does not represent a source of unpredictable risk, follow-on plants can be financed more conventionally, without the support necessary for the first few projects.

The tools and techniques necessary to stimulate investment in the next nuclear power plants in the United States will vary depending on project structure (single entity or consortium), and on the regulatory environment in which the project is built (rate-based or unregulated merchant plant). Companies able to develop new nuclear power projects in regulated states may have additional flexibility and options that would facilitate financing and that are not available for unregulated, merchant p[illegible].

Since there is no single, simple incentive that will stimulate construction of the first in a series of new nuclear power plants in the United States, the federal government should authorize a limited set of incentives to stimulate investment in U.S. energy security. The investment stimulus should be subject to an overall dollar cap, and should allow companies the flexibility to use any combination of the following financial incentives:

1. Production tax credits
2. Federal loan guarantees
3. Accelerated depreciation
4. Construction investment tax credits

A number of companies likely to build new nuclear power plants prefer the tax-related incentives, and do not believe loan guarantees and other forms of federal credit authority provide them the necessary financing benefit, or represent a feasible financing approach. On the other hand, some companies expect that loan guarantees will enable them to finance the first new nuclear plants as highly leveraged (*i.e.,* 80 percent debt), non-recourse projects.[1] Since it is impossible to predict at this time which companies will be "first movers," it is important to preserve both approaches.

Specific Answers

Question. To what level would a new plant need to be guaranteed? 100%?

Answer: A 100% guarantee of total project cost would not be necessary. The nuclear industry believes that a federal loan guarantee for up to 80 percent of total project cost (as provided for the Alaskan natural gas pipeline in the military construction bill by the 108th Congress) would be sufficient. This would reduce the cost of debt financing, and reduce the first project's weighted average cost of capital, thereby improving the economic competitiveness of the first project. Absent the loan guarantee, debt and equity investors would demand significantly higher returns on their investment to compensate them for the licensing risks associated with the first few new nuclear projects, which could compromise the project's economic competitiveness.

As noted above, however, federal loan guarantees are the financial incentive typically preferred by companies operating in restructured, deregulated electricity markets. Companies operating in regulated markets tend to prefer other forms of federal investment stimulus, such as tax-related incentives.

Question. How many plants would need to be built before loan guarantees would not be needed?

Answer: Financing challenges apply largely to the first plants in any series of new nuclear reactors. As investors gain confidence that the licensing process operates as intended and does not represent a source of unpredictable risk, follow-on plants can be financed more conventionally, without the support necessary for the first few projects. Industry expects that loan guarantees or other forms of federal investment stimulus will be necessary for the first four to six units of any new nuclear reactor design.

Question. Do you think concerns about loan defaults are warranted? If not, why not?

Answer: Concerns about companies defaulting on loan guarantees are not warranted. The companies interested in building new nuclear power plants are not considering these investments in order to fail: They intend these projects to succeed, and they will not proceed with a decision to move forward without being convinced that they have a high level of confidence in cost and schedule to build. The federal investment stimulus—whether a loan guarantee or tax-related incentives—is designed solely to offset the risks of building the first several new nuclear plants and to protect companies from the risk of licensing delays or court challenges over which they have no control.

Question You stated that companies will need a combination of financing tools and tax incentives. Why isn't it possible to provide one generic solution industry-wide?

Answer: The tools and techniques necessary to stimulate investment in the next nuclear power plants in the United States will vary depending on project structure (single entity or consortium), and on the regulatory environment in which the project is built (rate-based or unregulated merchant plant).

Because of these variations, there is no single, simple incentive that will stimulate construction of the next new nuclear power plants in the United States. The federal government should, therefore, authorize a portfolio of incentives to stimulate investment in U.S. energy security. The investment stimulus should be subject to an overall dollar cap, and should allow companies the flexibility to use a combination of loan guarantees or tax-related investment incentives.

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[1] In this context, "non-recourse" simply means that creditors would not have access to the sponsoring companies' assets beyond the assets of the project itself. This is often referred to as "off balance sheet" financing.

Question 4. You state that there are several provisions in the bill that would make the nuclear fuel market more stable and competitive. Do you support the establishment of a strategic uranium reserve? Would you support requiring the Department of Energy to sell limited quantities of its surplus uranium into the market?

Answer: The industry has always thought a strategic uranium reserve would be a way to hedge against a disruption in supply that would create an emergency. The industry needs predictable, stable markets with assurance that nuclear fuel would be delivered when called upon. The strategic uranium reserve would only be used if a reactor would fail to return from a refueling outage due to lack of fuel, which was not as a result of the lack of planning and or payment/cost for nuclear fuel.

The Department of Energy should have the flexibility to sell quantities of uranium into the market. However, the sales cannot result in adverse impact on the market. Therefore, the uranium sales provisions, as established in last year's energy bill should remain in this year's bill. In addition, DOE should be required to establish clear, transparent procedures for sales into the market, including timing of the sales.

Question 5. Do you recommend that Congress take action now with regard to the radiation standard at Yucca Mountain? What action should be taken now, if any? What do you mean by institutionalizing the repository radiation standard as a matter of policy that applies to all hazardous waste?

Answer: As you know, the Court of Appeals decision identified that its decision could be addressed either by promulgating a new standard through the rulemaking process or through legislation as was done for the Waste Isolation Pilot Project. We would also note that 10,000 years is the standard for radiation regulation established by the International Atomic Energy Agency and, in the United States, by regulation for other hazardous materials. We understand that EPA is developing a revised draft regulation which may be available this summer. However, we are concerned that this process, including potential legal challenges, could be lengthy and delay the program, at significant cost to ratepayers and taxpayers, with no resulting benefit in appropriate protection of public health, safety and the environment. Therefore, we believe it is important for the Congress to provide close oversight of this process and consider legislative action to assure that our overall policy objectives are realized.

Question 6. Your fellow panelist, Mr. Nayak, characterizes the Price Anderson Act as a "special taxpayer-backed insurance policy." Are taxpayers required to subsidize coverage for nuclear plants?

Answer: Taxpayers do not subsidize coverage for nuclear plants. Each nuclear plant is required to maintain $300 million of direct insurance coverage for an "extraordinary nuclear occurrence" as determined by the Nuclear Regulatory Commission.

If an occurrence causes harm in excess of the $300 million, every plant in the current fleet is required to provide retroactive payments of up to $100.6 million. This amounts to $10.46 billion of retrospective coverage for every occurrence. If the amount of harm exceeds this total of $10.46 billion coverage, then Congress is required by the law to determine who would pay the additional amount.

Price-Anderson provides the largest amount of privately paid-for collective coverage of any industry in the nation or the world. It is no fault in nature and the liability will be determined in one court, ensuring that payments will be received in the most expeditious manner.

For further information, we would like to submit for the record the attached NEI Fact Sheet, "Price-Anderson Act Provides Effective Nuclear Insurance at No Cost to the Public."

Question 7. You mentioned the need for a "stable, predictable regulatory process." In what ways do you currently believe it to be unpredictable? What could be done to improve it?

Answer:

Regulation of Security

NRC imposed a new Design Basis Threat on power reactor licensees through the issuance of an Order in April 2003. All licensees were in compliance with the Order on or before the required implementation date of October 29, 2004. After issuing the order, the NRC issued guidance to clarify the Order requirements in August of 2003. NRC revised the guidance eight times through May of 2004. The process is not predictable when it takes a year and eight revisions of a guidance document to finally understand what the original Order required.

Also, the April Order stated that the new Design Basis Threat was the maximum against which a private security force should be expected to protect, under current law. However, the NRC staff gives a threat briefing to the Commissioners every six months. One such briefing will occur in April and we understand consideration will be given to increasing the adversary weaponry. It is not a predictable process when the licensee is told that the threat is at the maximum and yet the agency is considering a change to the threat. The nuclear industry needs the DBT to remain stable to allow time for training security officers on new strategies to respond to the new DBT issued in April.

If the NRC believes the threat environment necessitates an increase in the DBT, the federal government must take action to mitigate the threat. The Chairman of the NRC is on record as saying nuclear plants have done just about all that can be expected of the private sector. We agree. NRC should not assume they are the only part of the Federal government that is providing protection of the nation's nuclear power plants.

Another example of how the process is not predictable is the issuance of advisories. NRC will use this tool to advise licensees of a particular interpretation of a security requirement or recommend actions licensees should take in response to a concern NRC may have in a specific area of security. Although they are just advisories, the NRC has expectations that licensees will implement the recommendation or adopt the interpretation.

One solution to improving the situation is for NRC to engage the industry upfront before issuing new guidance or adviseries. Early engagement provides the opportunity to understand the problem and identify unintended consequences.

Reactor Oversight Process and 10 CFR 50 Regulations

The NRC revised Reactor Oversight Process, which began in 2000, and uses a risk-informed significance determination process to evaluate inspection findings. The inspection process primarily assesses licensee compliance with the current regulations and technical specifications, which are still largely deterministic and not risk-informed. Thus, there is a gap between the oversight process and the regulations that needs to be closed to achieve a common safety focus. This gap also leads to inefficiencies in the ROP as it diverts both NRC and licensee resources to matters of low safety significance.

The NRC must move beyond policy exhortations to codify realistic conservatism based on insights from probabilistic risk assessments and 40 years of operating experience. The agency should accelerate its efforts to make the regulations themselves more safety-focused. A step forward was taken in November 2004 with the issuance of 10 CFR 50.69, which will allow a more safety-focused scope of equipment subject to the NRC's special treatment requirements. The NRC needs to move forward with it revision to 10 CFR 50.46, which will improve the safety focus of NRC's technical requirements in the regulations.

New Plant Licensing

In the area of new plant licensing, the implementation process for the Part 52 process is still under development. As with any new process, there have been unexpected implementation problems. Until the complete Part 52 licensing process has been exercised and adjustments made from the pilot activities, there will be continuing uncertainty over the viability of the new process.

Examples:

Adjustments and lessons learned from the first three design certifications are being incorporated into a revision to 10 CFR Part 52. This revision has been delayed until mid-2006 because the NRC is unable to reconcile public comments. The delay introduces uncertainty into the process as companies begin to make decisions on whether to proceed with the development of a combined construction permit and operating license application.

The Early Site Permit process is experiencing the same "teething" problems as the design certification process did 10 years ago. Three pilot applications are under review. Implementation issues include:

- Substantial and unexpected variation in the estimated seismic ground motion estimates when exercising the new seismic ground motion methodology. This variability in the licensing and design bases will continue for the life of the plant. This has major financial implications, raising a high potential for major modifications during the operating life of 40 or more years.
- Uncertainty over the degree of finality accorded to environmental issues in a combined licensing proceeding that were reviewed and resolved in an early site permit review. It is uncertain at this time whether a major portion of the work

and review performed at the early site permit stage would have to be repeated at the combined licensing stage.

- Emergency Preparedness development and the degree of finality accorded to emergency preparedness in a combined licensing proceeding that were reviewed and approved at the time of an early site permit. The industry and the NRC are still working on this issue and are exploring alternative approaches.

Until these issues are resolved there is uncertainty over the financial value of seeking an early site permit.

On the combined construction permit and operating license, the industry and the NRC are working towards resolution of over 25 generic implementation issues ranging from format and content of an application to the implementation process for supporting a Commission determination on loading fuel. While progress is being made, there will be continuing uncertainty over the combined licensing process until these issues are resolved and the first new nuclear power plant are built and start generating electricity.

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Red Cavaney
President and CEO

March 21, 2005

The Honorable Ralph A. Hall
House of Representatives
Washington, D.C. 20515

Dear Mr. Hall:

This is in response to follow-up questions contained in your letter of March 4, 2005 related to my testimony before the House Energy and Air Quality Subcommittee on February 16, 2005. I was honored to testify and thank you for the opportunity to provide more information and to clarify some of the points I made at the hearing. API appreciates your continued efforts to pass comprehensive energy legislation.

In response to your questions:

1. Did EPA Approve the Use of MTBE as a fuel additive?

Yes. At least three times. On February 23, 1979, EPA gave a "waiver" under Section 211(f)(4) of the Clean Air Act which allowed refiners to add methyl tertiary butyl ether ("MTBE") to gasoline. 44 FR 12242 (March 6, 1979) (approving up to 7% MTBE by volume.). EPA gave a second "waiver" on August 25, 1988. 53 FR 33846 (September 1, 1988) (approving up to 15% MTBE by volume). In its regulations implementing the 1990 Clean Air Act Amendments ("CAAA"), EPA again approved MTBE for use as an additive in gasoline by adopting the waivers previously issued by the Agency. 56 FR 31154 (June 11, 1991).

I note that the facts conclusively show that EPA knew about the risks of gasoline spills, and the potential threat that MTBE posed to groundwater if gasoline was spilled, well before Congress' CAAA in 1990 and before EPA promulgated its implementing regulations in 1991. (See Attachment A for information about early government knowledge of MTBE and potential groundwater impacts.)

Moreover, EPA continued to "approve" MTBE after the CAAA. The former EPA Director of the Office of Mobile Sources from 1982-1994 has testified that even after receiving reports about MTBE's potential to contaminate drinking water, EPA elected not to remove MTBE from Congress' winter oxygenated fuel ("Oxy-Fuel") and reformulated gasoline ("RFG") programs because "[I]t was EPA's official position that MTBE had been tremendously successful in providing healthier air for cities across the country" and, therefore, "that there was no reason to curtail the [RFG] or [Oxy-Fuel] programs, which had been remarkably successful in improving air quality in America's cities, or to cut back the use of oxygenates, including MTBE." *Declaration of Richard D. Wilson*, Paragraph 24 (July 11, 2001) (on file in *Communities for a Better Environment v. Unocal Corp., et al.* (Copy attached as Attachment B).

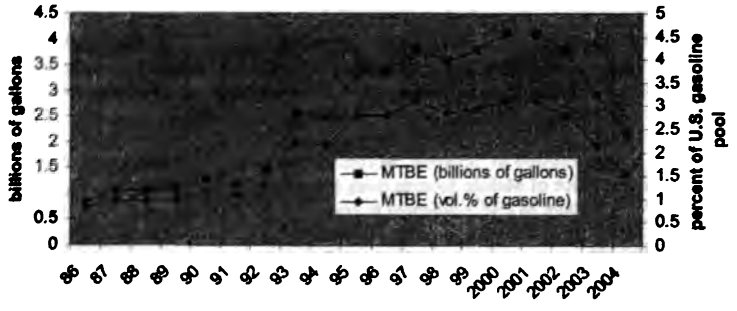
2. What volumes of MTBE were blended in gasoline before and after the Clean Air Act Amendments were passed in 1990?

MTBE was approved by EPA as a fuel additive in 1979. As the graph below illustrates, from 1986 to 1992, U.S. gasoline, on average, contained approximately 1 percent MTBE by volume. During this time, MTBE was added to gasoline primarily to replace the octane lost because of the phase-out of lead in gasoline. However, during the late 1980s, some MTBE oxygenated gasoline was used in western states to control carbon monoxide emissions in cold weather. By 1990, MTBE was present in about 25 percent of the gasoline used nationally.

As Congress anticipated, the use of MTBE in gasoline significantly increased as its Oxy-Fuel and RFG programs went into effect beginning in November 1992 and January 1995, respectively. The Oxy-Fuel program required that gasoline contain 2.7 percent oxygen by weight (roughly 15 percent MTBE by volume) in 39 cities. MTBE accounted for a two-thirds share of the oxygenates used at the beginning of the program.[1] As can be seen, use of MTBE in gasoline increased from approximately 1.4 billion gallons in 1992 to almost 2.5 billion gallons by 1993. The RFG program required 2 percent oxygen by weight in every gallon of RFG (translating into roughly 11 percent MTBE by volume). With both the Oxy-Fuel and RFG programs in full swing, MTBE use in gasoline reached a peak of roughly 4.0 billion gallons in 2000.

MTBE Use in U.S. gasoline, 1986 - 2004

(Sources: 1986-1991, DeWitt; 1992 - 2004, EIA/DOE)



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[1] http://www.epa.gov/otaq/consumer/rfgnew.txt

3. Did API oppose the federal oxygen mandate in the 1990 Clean Air Act Amendments? If so, why?

Yes. The American Petroleum Institute ("API") consistently opposed the RFG oxygen mandate passed by Congress as part of the CAAA. API objected to Congress prescribing the formula for gasoline, including particularly the oxygen requirement, rather than allowing refiners to determine the most appropriate methods for achieving clean air objectives. The oxygen content standard for RFG in effect dictates a recipe for gasoline and greatly decreases refiners' flexibility. Performance standards provide much greater flexibility but still result in clean burning gasoline.

4(a) On the issue of boutique fuels, would mandating additional fuel specification changes, other than repealing the oxygenate requirement, unnecessarily complicate the supply markets before all the facts are known?

4(b) On the issue of boutique fuels, would repeal of the oxygenate requirement help alleviate the boutique fuels phenomenon?

Boutique fuels result when a unique set of fuel specifications are required in an area that then sets that area apart from surrounding geographic areas served by the same supply and distribution system(s). Boutique fuels don't cause supply problems, but when disruptions in supplies to an area with a boutique fuel occur, they are exacerbated by the fact the fuels from the surrounding areas may not be usable in the boutique fuel area.

Repeal of the oxygenate requirement would help mitigate the boutique fuels phenomenon. A primary cause of the proliferation of state fuel requirements is the 2% oxygen content requirement for reformulated gasoline (RFG). Many states, having determined a need for emissions reductions from fuels, chose to put in place their own unique fuel programs, rather than RFG, to avoid the additional cost of RFG with oxygenates and, as concerns regarding MTBE in groundwater have grown, to avoid the use of MTBE.

Individual states such as California, New York and Connecticut have enacted MTBE bans that went into effect in 2004, and many other states have proposed MTBE ban legislation as well. This, combined with the federal RFG oxygen requirement, will require the production of yet another specialty gasoline, an ultra low volatility gasoline blendstock to be blended with ethanol at the terminal to produce RFG. This could further add to the patchwork of fuels requirements across states that could further constrain the distribution system. In addition, it will likely result in an inefficient use of ethanol, forcing it into every gallon of RFG, and requiring significant volumes of ethanol to be transported to the East and West Coasts. In addition, as the number of states allowing the continued use of MTBE shrinks, MTBE blended RFG becomes more and more of a boutique fuel as well, particularly if states limit MTBE use on a patchwork basis, as is currently happening on the US east coast.

API supports the package of fuels provisions in HR 6, the energy conference report from 2003. Those provisions would repeal the RFG oxygen content requirement and require an orderly phase-out of MTBE nationally. Such legislation would mitigate the boutique fuels problem by reducing state incentives to require their own specialty fuels. It would assure an orderly phase-down of MTBE nationally instead of a state-by-state approach that would result in a patchwork of fuel requirements across states if the status-quo is maintained. It also calls for the establishment of a renewable fuels standard ("RFS"). The RFS does not require renewable fuels in every gallon of gasoline and includes a credit banking and trading program that will allow renewable fuels to be used where it makes the most economic sense. In these ways the number of specialty fuels is kept to a minimum.

Yes, mandating additional fuel specification changes, other than repealing the oxygenate requirement, would unnecessarily complicate the supply markets before all the facts are known.

The bill also requires that EPA and DOE study the impacts of boutique fuels and make recommendations to Congress to fix the problem. In addition, the bill directs EPA to consult with DOE in granting waivers to states for specialized fuels (Section 211(c)(4)(C) of the Clean Air Act). This package of fuel provisions would cause a number of changes to the supply and distribution of fuels. It would be prudent to wait for those changes to take place before mandating additional fuel specification changes.

API appreciates the opportunity to respond to your questions regarding fuels and energy legislation. Please do not hesitate to contact us if we can be of further assistance.

Sincerely,

(Original signed by Red Cavaney)

bc: Chairman Joe Barton
Rep. Rick Boucher
Rep. John Dingell
Bud Albright, Energy and Commerce Committee
Reid Stuntz, Energy and Commerce Committee
Elizabeth Stack, Office of Chairman Hall
Becky Coleman, Office of Rep. Boucher

ATTACHMENT A: GOVERNMENT KNOWLEDGE ABOUT MTBE AND GROUNDWATER PRIOR TO AMENDING CLEAN AIR ACT IN 1990

There is ample evidence that EPA had knowledge of MTBE's solubility (and other characteristics) in the 1980s, long before it approved MTBE for the Oxy-Fuel and Reformulated Gasoline programs. Highlights of that evidence are set forth below.

1980	EPA Region II involved in MTBE contamination incident in Rockaway, NJ.
1981	EPA Region III involved in MTBE contamination incident in Jacksonville, MD.
1985	Federal and State Toxicological and Regulatory Advisory Committee ("FSTRAC") created by EPA.
May 23, 1986	EPA intra-branch memorandum discusses discovery of MTBE in wells in NJ and NH.
Oct. 31, 1986	Based on prior experience with MTBE contamination of groundwater, EPA adds MTBE to priority list for chemical fate and health effects testing under Toxic Substances Control Act ("TSCA").
Nov. 1986	Peter Garrett and Marcel Moreau of Maine's Department of Environmental Protection present paper entitled "MTBE as a Ground Water Contaminant" at the National Water Well Association/ American Petroleum Institute Conference on Petroleum Hydrocarbons and Organic Chemicals in Ground Water. Paper concludes, *inter alia*, that MTBE (1) is more soluble in groundwater than other gasoline components, and (2) creates taste and odor problems in drinking water.
Dec. 11, 1986	EPA representative (Dr. Beth Anderson, TSCA Program Director for MTBE) speaks with Garrett and Moreau. Garrett/Moreau inform Dr. Anderson that MTBE is more soluble in groundwater.
Feb. 26, 1987	EPA publishes Draft Final Technical Support Document on MTBE, which states that MTBE released from underground storage tanks will reach groundwater faster than other gasoline components.
Apr. 6, 1987	EPA memorandum from Beth Anderson to Joe Merenda entitled "Division Director Briefing for Methyl tert-Butyl Ether (MTBE)," summarizes concerns regarding MTBE's characteristics in groundwater.
May 5, 1987	EPA intra-branch memorandum states that increasing reports of MTBE in groundwater are a "major concern."

Aug. 5, 1987	EPA conducts briefing for staff members of Senate Committee on Environmental and Public Works regarding testing of MTBE under TSCA § 4. MTBE groundwater issues are discussed.
Aug. 7, 1987	EPA memorandum from Joseph J. Merenda to Joseph A. Cotruvo entitled "Methyl Tert-butyl Ether in Drinking Water," addresses the issues surrounding the characteristics and remediation of MTBE in groundwater and attaches a copy of the 1986 "Garrett Report."
Sept. 8, 1987	FSTRAC recommends MTBE be added to Drinking Water Priority List ("DWPL").
Oct. 6-7, 1987	Seminar on "Underground Environment of an UST Motor Fuel Release" sponsored by the EPA Hazardous Waste Engineering and Research Laboratory Release Control Board, discusses cleanup of gasoline containing MTBE, TBA and other oxygenates.
Jan. 22, 1988	EPA adds MTBE to first DWPL under Safe Drinking Water Act "[b]ecause of the potential for widespread contamination." (53 Fed. Reg. 1901).
Mar. 31, 1988	EPA issues final rules and regulations under FSTRAC, including a Testing Consent Order, stating: "EPA has an additional concern about MTBE contamination of ground water . . . [T]he rapid growth in production, transport, and use of MTBE will probably contribute to an increase in incidents of contamination . . . MTBE is relatively water soluble . . . compared to other gasoline components." "This solubility, coupled with the fact that an estimated 35% of . . . non-farm underground storage motor fuel tanks would not pass EPA tightness tests, indicates the potential ground water contamination problem." (53 Fed. Reg. 10392).
Apr. 1988	EPA Office of USTs publishes "Cleanup of Releases from Petroleum USTs" (EPA/530/UST-88/001), a comprehensive report regarding groundwater cleanups, that highlights MTBE in several sections, mentioning its increasing use, its high solubility in groundwater and the likelihood it will produce larger plumes of contaminated groundwater than other gasoline constituents. The paper also contains a "case study" on an MTBE cleanup in Rockaway, New Jersey.

On February 2, 2001, Thomas Schruben was deposed in South Tahoe Public Utility District v. ARCO, et al., an MTBE case then pending in California Superior Court, (San Francisco). From approximately 1987-1992, Mr. Schruben had worked in EPA's Office of Underground Storage Tanks where he, *inter alia*, participated in the agency's efforts to draft updated underground storage tank regulations. Mr. Schruben also was a member of an agency group charged with reviewing and analyzing the different oxygenates that were being considered by EPA's Office of Mobile Sources for inclusion in the Oxy-Fuel and RFG programs. Mr. Schruben testified that EPA was well aware of the solubility and other characteristics of MTBE (and the other oxygenates) well before passage of the CAAA and the agency's promulgation of regulations approving MTBE:

Q. The third issue that you identified was the involvement of the Office of Underground Storage Tanks with the development of the oxygenate rule. What do you intend to testify to on that issue?

A. The Office of Underground Storage Tanks examined the issues, we were requested to examine the issues related to oxygenates and how that could potentially impact our program and we re-examined our program in light of the experience we had gained in the intervening couple of years of implementation and we identified potential threats to groundwater that could arise out of oxygenates, particularly MTBE.

While we started out considering a variety of oxygenates when we were working in cooperation with the Office of Mobile Sources, by the end of the period when we were working on the work group with them, it was clear that MTBE was the oxygenate of choice and that we raised to the administrator's attention those potential impacts to groundwater. Those impacts were considered in final approval of the rule.

Schruben Transcript 78:3-79:4.

Q. I am going to ask you to tell me everything you can recall about the memo that was sent from your branch to the Administrator on [the oxygenate rule].

A. We looked at the mobility and the threats to groundwater of the oxygenates. They all were highly soluble, highly mobile and we discussed that. And then we looked at whether that would have an impact on human health and the environment, that solubility, you know, and the characteristics. Once, if a release were to occur, would that . . . have an affect on human health and the environment.

Schruben Transcript 148:13-16 and 150:10-19.

Q. Was there any discussion of the fact that low-level releases . . . might pose a problem for groundwater because of the use of oxygenates?

A. We did say in terms of the mobility and the persistence and the difficulty with cleanup, that oxygenates were likely to be more persistent in the environment and would likely spread further from a tank release . . .

Schruben Transcript 152:1-6, 10-19.

On March 8, 2001, Marcel Moreau was deposed in the South Tahoe litigation. He also testified that EPA was aware of MTBE's alleged solubility and other characteristics long before passage of the CAAA and promulgation of EPA's implementing regulations approving MTBE:

Q. When, in your opinion, did representatives of the EPA understand that MTBE was more soluble than the other constituents of gasoline in groundwater?

A. . . . In the documentation that I have reviewed, the date would have been in late 1986, when the EPA personnel became aware of the Maine paper published by Peter Garrett, myself and Jerry Lowry.

Moreau Transcript, 452:21-24, 453:6-9.

Q. With regard to the mobility of MTBE as a contaminant moving in groundwater, when, in your opinion, did the EPA learn that MTBE was more mobile than the other constituents in gasoline?

A. From the records that I have reviewed or the documents that I have reviewed, there are indications that certain members of the EPA had read or knew of the paper that Dr. Garrett and myself and Jerry Lowry had written in the fall of – fall and early winter of 1986.

Moreau Transcript, 469:20-23, 470:2-7.

Q. With regard to the difficulty of remediating or cleaning up MTBE as a groundwater contaminant, what is your understanding of when EPA first learned of that characteristic of MTBE?

A. . . . Difficulty of remediation, that was discussed in the Maine paper (1986).

Moreau Transcript, 471:9-12.

Q. With respect to odor and taste thresholds of MTBE, when, in your opinion, did the EPA first know that MTBE had an odor and taste threshold which was lower than the other constituents of gasoline when it was a contaminant in groundwater?

A. I have no idea when they might have first known about that. That was a topic that was discussed in our paper. [EPA] knew about the paper in the fall of '86. If they read the whole paper, then they might have learned of it then. They could well have known about if before.

Moreau Transcript, 471:22-472:2, 472:4-9.

NHA
National Hydropower
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March 16, 2005

The Honorable Ralph Hall
Chairman
Energy & Air Quality Subcommittee
2125 Rayburn House Office Building
U.S. House of Representatives
Washington, DC 20515

Dear Chairman Hall:

In response to your letter of March 4, 2005, please find attached my answers to your questions concerning the *Energy Policy Act of 2005*.

Should you or your colleagues need any additional information, you can contact me or Mark R. Stover, director of government affairs & media relations for the National Hydropower Association.

Sincerely,

James H. Hancock, Jr.
Chairman, Legislative Affairs Committee
National Hydropower Association

REPLY OF
JIM HANCOCK
(NATIONAL HYDROPOWER ASSOCIATION)
TO
CHAIRMAN RALPH HALL
HOUSE ENERGY & AIR QUALITY SUBCOMMITTEE

FOLLOW-UP QUESTIONS
FEBRUARY 16, 2005 HEARING
ENERGY POLICY ACT OF 2005

Question 1
Some parties have claimed that the proposed changes to hydroelectric licensing may result in a violation of due process. How do you address these allegations?

The claims of due process violations have largely revolved around the trial-type hearing provisions of the bill. NHA disagrees with claims that due process rights would be violated by the *Energy Policy Act of 2005* because every opportunity or right that non-applicant stakeholders possess under today's licensing process will remain unchanged by the *Energy Policy Act of 2005*. Non-applicant stakeholders will still be able to challenge final license decisions and agency actions in a federal appeals court. Moreover, non-applicant stakeholders will have participatory rights in each of the processes created by the bill's hydro licensing reform language. Nothing in the bill prevents non-applicant stakeholders from offering alternative conditions, just like the license applicant, and nothing in the bill prevents non-applicant stakeholders from requesting or participating in the trial-type hearings on disputed issues of material fact.

Fundamentally, the purpose of the Due Process Clause is to ensure that individuals are not subject to arbitrary governmental deprivation of rights. Due process first requires that there be a right that is being impinged upon.[1] In the context of an agency action, the Due Process Clause has been narrowly applied.[2] The courts have held that the agency must be depriving an individual of an interest in "life," "liberty," or "property." And, each of these interests has been narrowly interpreted. Moreover, the U.S. Supreme Court has drawn a distinction between property rights in the traditional, black letter law sense, and a benefit or entitlement.[3] Only in very limited circumstances is a benefit or entitlement provided with protection. In the hydropower licensing context, other parties do not have a property interest as the Supreme Court has defined it.

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[1] *Mathews v. Eldridge*, 424 U.S. 319, 335 (1976)(noting that due process first requires consideration of "the private interest that will be affected by the official action").

[2] For example, in *U.S. ex rel Johnson v. Shaughnessy*, 338 U.S. 537 (1950), the Supreme Court held that the Due Process Clause did not apply to the decision made by an immigration officer who denied entry into the U.S. of a foreign-born spouse of a U.S. serviceman. Although the serviceman would have to choose between being separated from his spouse or his country, the Court held that the Due Process Clause did not apply because there was no deprivation of "life," "liberty," or "property."

[3] There are two Supreme Court cases that are critical to understanding the Court's interpretation of the Due Process Clause – *Goldberg v. Kelly*, 397 U.S. 254 (1970) and *Mathews v. Eldridge*, 424 U.S. 319 (1976). A full discussion of the evolution of due process is beyond the scope of this paper. An excellent discussion is contained in RICHARD J. PIERCE, JR., ADMINISTRATIVE LAW TREATISE §§9.1 – 9.4 (4th Ed. 2002).

Moreover, only where there is an individualized deprivation is procedural due process required. When it is a policy-based deprivation of a class, no procedural due process is required by the agency.[4] The courts have held that when this occurs, the class has the protection of the political process. It is out of this political process that the Administrative Procedure Act arose, which provides procedural safeguards in the situations not protected by the Due Process Clause. The rights asserted by environmental groups or other non-applicant stakeholder groups would not be specific to an individual. Rather, they are held by the class of individuals, and therefore, not entitled to constitutional due process protection as they are protected through the political process.[5]

The trial-type hearing provisions contained in the *Energy Policy Act of 2005* do not deprive any person or entity of its due process rights. The provisions do provide an applicant with the opportunity to ensure that mandatory conditions are based on verifiable facts. However, the right to request this evidentiary hearing is a right that will be granted by the statute, not by the Constitution. This is a policy decision made by Congress – that the applicant should have the ability to challenge and verify the facts, and only the facts, on which conditions are premised.

While the bill provides the applicant with the affirmative right to request such a hearing, nothing prohibits another entity from requesting a hearing, or from participating in the hearing itself. Even if the provisions did exclude other parties, this would not violate due process rights. In many instances, the party that is losing the property right or entitlement has a right to a hearing while other potentially affected parties do not. This distinction is provided for in both the Coastal Zone Management Act (CZMA) and the Clean Water Act (CWA).

Under Section 1456 of the CZMA, a license applicant must provide certification that the activity complies with the state's coastal management plan. The state must provide a concurrence with this certification. The statute provides the Secretary of Commerce with the ability to override the state's concurrence (or lack thereof) "on his own initiative or upon appeal by the applicant." Similarly, the applicant is given a specific right to appeal in the issuance of a Section 404 permit under the CWA.

The regulations issued by the Army Corps of Engineers in 2000 (33 C.F.R. 331) provide an "affected party" with the right to an administrative appeal of conditions imposed on the 404 permit. An affected party is defined as "a permit applicant, landowner, a lease, easement or option holder (*i.e.*, an individual who has an identifiable and substantial legal interest in the property)." This right to request an appeal conference is not granted to other parties.

Finally, the *Energy Policy Act of 2005* does not affect any party's ability to appeal or seek review a final license in Federal Appeals Court. There is no deprivation of property until the license is actually issued and, at that time, any interested party may appeal it. The trial-type hearing contained in the bill is an interim review of the factual basis on which conditions are based. It is not the final decision. It is not used to challenge agency decisions or actions. Therefore, there is no violation of due process by granting the applicant this right to a trial-type hearing, but not other parties, as some have suggested.

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[4] *Londoner v. Denver*, 210 U.S. 373 (1908); *Bi-Metallic Investment Co. v. State Board of Equalization*, 239 U.S. 441 (1915). More recent cases continue to follow this line of reasoning. *See, e.g., Minnesota Board for Community Colleges v. Knight*, 465 U.S. 271, 285 (1984); *Anoconda Co. v. Ruckelshaus*, 482 F.2d 1301 (10th Cir. 1973); *Interports Pilots Agency v. Sammis*, 14 F.3d 133 (2nd Cir. 1994).

[5] Nor does this raise an equal protection issue. Equal protection requires that classes be treated equally. The applicant is an individual, not a class. The other rights being asserted are those of a class of individuals. Moreover, the interests of environmental groups and others are represented by the resource agency during consideration and imposition of the condition.

Question 2
Do the proposed hydroelectric licensing changes in the Energy Policy Act of 2005 limit public input? How many times during the relicensing process does the public have input? Please describe.

No, the bill does not limit public input. Non-applicant stakeholders (including agencies, Tribes, individuals, and public interest groups) play a meaningful, important and active role in today's hydropower licensing process. The *Energy Policy Act of 2005* will not in any way change or diminish these frequent and full participation opportunities in the licensing process. The suggestion made by the opponents of the *Energy Policy Act of 2005* that this bill excludes or limits non-applicant stakeholders from participating in the licensing process ignores the important role they presently play –which this legislation fully preserves – and fails to recognize the additional opportunities that this bill affords non-applicant stakeholders. In short, the hydropower licensing process will continue to serve as the most public and inclusive process for the licensing or permitting of any energy source.

Today's process provides non-applicant stakeholders at least twelve opportunities to participate in the licensing of hydro projects, and to influence conditions proposed by federal resource agencies. I submit to the Subcommittee two attached documents to this letter that highlight the current role of non-applicant stakeholders in FERC's hydropower licensing process, and how that role will remain unchanged if the Energy Policy Act of 2005 is adopted.

If a non-applicant stakeholder believes that an agency's condition is inadequate, it may seek an administrative rehearing at FERC to strengthen the condition. Though FERC is powerless to modify agency conditions at the applicant's request, it has full authority to expand upon these licensing requirements at the request of a non-applicant stakeholder. In addition, non-applicant stakeholders have the ability to challenge agency decisions in federal appeals court once a final license is issued. The *Energy Policy Act of 2005* does not alter or remove these opportunities.

Furthermore, the bill would create additional participatory opportunities for non-applicant stakeholders. The bill specifically provides that these stakeholders may offer alternative mandatory conditions. And, nothing in the bill excludes these stakeholders from participating in the trial-type hearings that may be held with respect to disputed issues of material fact.

In summary, nothing in the bill would effect the multiple opportunities that non-applicant stakeholders currently have to participate in the licensing process, and would instead create additional opportunities.

Question 3
Of the 296 projects that must be relicensed over the next 13 years (through 2018), are any of these projects owned by public power or municipal power entities? Will relicensing conditions or delays directly impact consumers?

Yes. According to FERC's hydropower license project database, 52 projects that are owned by public or municipal power entities must be relicensed by 2018. The total energy capacity of those 52 projects is 11,131 MW, which represents over a third of the total hydropower capacity

that must be relicensed by 2018. Several of those projects are large facilities in the Pacific Northwest.

In terms of the impacts of mandatory conditions and prescriptions on consumers, the figures vary since hydropower is a unique resource with issues that differ from project to project. An issue affecting one project in the Northwest that may require expensive mitigation measures may not be an issue for a project in the Northeast, for example.

With that said, all costs of licensing, as well as the costs for protection, mitigation, and enhancement measures implemented by the new license, generally are passed directly to the consumer.

In its 603 Report to Congress, FERC analyzed a number of projects and found that the average cost to prepare a license application was $85/kW. Protection, mitigation, and enhancement measures (post license issuance) cost $212/KW, on average. FERC's Report also noted that these protection, mitigation and enhancement costs are nearly three times as high for projects with Section 4(e) conditions or Section 18 prescriptions than those without such conditions and prescriptions.

Question 4
Does NHA support FERC's ILP process?

Yes. The National Hydropower Association's staff and member companies participated actively in the ILP rulemaking. NHA commends the Commission for its leadership in undertaking the rulemaking, and for completing it in such a timely fashion. NHA believes the administrative reforms contained in the rulemaking are a first step in creating a licensing process that is more efficient, cost effective, and provides more clarity to applicants and non-applicant stakeholders. NHA also commends the federal resource agencies for their cooperation in the ILP process. NHA supports, and will continue to support, efforts to reduce costs and time in the licensing process.

However, and more importantly, NHA is interested in actions by Congress, FERC, or the federal resource agencies that will ultimately improve licensing decisions and outcomes. This is accomplished by resolving the issue of how federal resource agencies exercise mandatory conditioning authority. This is an issue FERC's ILP rulemaking could not address.

In fact, in its comments on the ILP rule, FERC stated:

> **"During the development of this proposed rule, many commenters have raised issues beyond the scope of this rulemaking and, in fact, beyond the scope of this Commission's jurisdiction, such as concerns about the content of license conditions imposed by various federal land and resource management agencies with authority to require conditions for Commission-issued licenses. We acknowledge that the changes proposed in this rulemaking are largely procedural in nature and would amend only the regulations of this Commission, not the regulations of any of the Federal or state agencies involved in hydropower licensing."**

While FERC's ILP should be helpful and is supported by NHA, it is by no means a substitute for the much-needed hydropower licensing reforms contained in the *Energy Policy Act of 2005*.

Only legislative action will truly repair the licensing process in a way that balances the nation's energy needs with the need, and quite frankly the industry's desire, to adequately address and mitigate for hydropower's environmental impacts. Only legislation can amend the Federal Power Act, which is the statute that grants federal resource agencies their conditioning authority. NHA strongly supports the hydropower licensing process reforms on the bill and encourages Congress to adopt these provisions this year.

Question 5
Do the changes proposed in the Energy Policy Act of 2005 work with FERC's ILP process?

Yes, NHA believes that the hydropower licensing reform provisions contained in the *Energy Policy Act of 2005* are compatible with the timetables established in FERC's ILP.

Question 6
The DOE said in a briefing that it was eliminating its hydroelectric research program because when DOE looked to industry for cost sharing to install new turbine technology, no one stepped forward. Is this correct?

No. The financial and human resource commitment from the hydropower industry has been tremendous since the day it contributed $500,000 to initiate the DOE hydropower program. In fact, the hydropower industry has outspent the federal government on advanced turbine technology.

According to a survey conducted by the National Hydropower Association in 2002, industry outspent the federal government by 400 percent from 1994-2002. During that time period, industry spent at least $270 million for R&D projects. What's more, the study captured only a share of the industry's activities as only 35 of NHA's 120 members responded. Those members represented 25,171 megawatts of U.S. hydropower capacity.

In addition to vast capital resources, several companies have committed countless numbers of employee hours to the program, and have worked directly with DOE on many of its hydropower program focus areas. Industry's participation on the technical advisory committee that coordinates the advanced hydropower turbine (AHT) program has come from the generosity of those companies and their employees. As for "stepping up," no one has stepped up more than Grant County PUD from the state of Washington.

In the fall of 2004, Grant County PUD installed and has begun testing an AHT at its Wanapum Dam on the Columbia River. This testing will require analysis, and possible further testing, through 2007. In all, Grant County PUD has invested over $40 million on AHT technology.

In a February 23 news release, Grant PUD reported the new turbine is expected to improve survival of young migrating salmon and steelhead moving down the Columbia River to the Pacific Ocean. The new design addresses the entire hydraulic passageway and incorporates many improvements and modifications to reduce fish injury and mortality. The design geometry focused on making water flow through the unit as smoothly as possible. After three designs and the most detailed turbine model testing ever, the state-of-the-art turbine is now in operation.

The new six-bladed turbine is already living up to its promise. Early February testing showed a 14 percent increase in power output and an average three percent increase in water-use efficiency over conventional turbines. Fish passage testing began in mid-February, and will be completed prior to the spring fish migration period. Assuming the testing goes as expected, all ten Wanapum Dam turbines will be replaced over an eight-year period. Power output will increase from approximately 900 megawatts to 1,100 megawatts. The estimated cost of all ten turbines is $150 million.

During design development, NHA, Grant and others advocated for federal funding for DOE's hydropower program, which resulted in $2.5 million provided to Grant PUD for design and testing of the AHT. Grant has stated it moved forward only because of the commitment from DOE.

Grant's success could pave the way for other projects with fish migration issues. The AHT could practically eliminate the downstream impacts of dams from a fish passage standpoint. Since the federal government is the largest user of hydropower resources, it stands to gain significantly from the successes of the DOE program. Unfortunately, future funding, as well as important work on this critical issue, is greatly in doubt due to the Department's decision to significantly reduce, then abolish, the DOE hydropower program at the end of 2006.

While the advanced turbine program is very important, it has been only one component of the DOE hydropower program. DOE is also studying new, non-conventional hydro technologies, their feasibility and growth potential. The Department identified a wealth of hydropower potential at existing hydro projects and non-hydro dams. In addition, it has studied optimizing our existing hydro plants while preserving flows for other purposes. In short, DOE has done much important work, but more remains. We stand at the crossroads of many improvements and opportunities that could alter the future of hydropower. DOE must be involved in this work.

While it is true that hydropower is the oldest and largest renewable energy technology in the U.S., the fact is that hydropower is a changing and evolving technology with modern day issues such as fish impacts, riverine impacts, fluctuating fuel sources (water), and increasing competition for water use, to name a few. The Department's hydropower program is critical to ensuring that we fully understand and address these issues so we can maximize the potential of this important energy source in a responsible manner.

Report language in House E&WD Appropriations bills of the past have stated, "While worthwhile...such research (AHT) is more appropriately funded by turbine manufacturers and by the federal agencies with responsibility for building and operating federal hydropower facilities, principally the Army Corps of Engineers, the Bureau of Reclamation, and the power marketing administrations." Last year's final conference report called for the program to end outright. This too was driven by the House, not the Senate.

NHA strongly disagrees with this thinking. The AHT program, and other work at DOE on hydropower issues, can only succeed as a collaboration between project owners, federal research scientists, and energy and river advocates who each have a strong interest in furthering the application of hydraulic power technologies while maintaining the health of rivers. Previous conference report language ignores industry's significant investment in general R&D, and in its invested resources to the AHT in particular.

Further, for the following reasons, the government organizations referred to in past conference report language cannot be expected to conduct the scope of research critical to technological advancement that the DOE program encompasses:

- To optimize water resources for all uses, the public sector must participate, as the private sector cannot, by itself, quantify and value longer-term, higher-risk research that addresses strategic national interests. In today's electricity market, private sector R&D efforts primarily focus on short-term objectives and must be justified by a reasonable return on investment.
- The federal dam owners, with less than 200 projects in total, do not conduct research that comprehensively address the wide range of hydropower impacts that exist across over 2,000 non-federal projects nationwide. They too operate on a short-term, project-specific basis that prevent them from attempting the basic and applied research and scale tests.
- The Bureau of Reclamation's focus is entirely on western states where their projects are located. The AHT program, and other DOE focus areas, seek to provide national solutions to fish passages and other issues in all states with hydropower facilities.
- BPA's hydropower research is also very applied, short-term, and limited to issues in the Columbia River Basin. Longer term, more basic research has repeatedly been ruled outside the mandates given by Congress to such operating agencies.
- The other PMA's generally do not fund basic hydropower research, focusing instead on programmatic planning related to operations, and mostly on energy efficiency rather than environmental performance.
- DOE has been the lead agency for over 20 years on hydropower R&D – to move this function to other agencies with no history with such work would greatly undermine the accomplishments to date and jeopardize future work on these important issues.

Research indicates that further improvements in environmental mitigation can be achieved by applying state-of-the-art technology. Basic and applied research and full-scale testing are necessary to support the development of new technologies, especially with regard to fish passage, dissolved gases and regulated stream flows. No single owner, not even the federal government with the single largest hydropower holdings, can undertake this massive effort alone. That's why congressional funding for DOE's coordinated hydropower program is crucial.

There is far too much important work to be accomplished to abandon the DOE program now. This is especially true since a utility in the Northeast is interested in full-scale testing of a turbine (Alden turbine) that was designed through the DOE program but basically abandoned a few years ago. If the DOE program closes, this testing, which is to address eel issues in the Northeast, will not occur. Eels are a rapidly growing issue, and they may soon be placed on the ESA list. The utility's proposal is timely with regard to eel issues, but untimely from a funding perspective. Restoring the DOE program will allow this creative approach to a complicated problem move forward.

Quite simply, closing the DOE program would mean that the years of hard work and resources spent by the government and the industry would be for naught. Congress must restore the program, increase its commitment to DOE's hydropower program, and ensure full funding for the AHT, as well as other hydropower research areas within the Department.

Question 7
How long does the hydroelectric relicensing process take now? How long will it take after the reforms to the process contained in the Energy Policy Act of 2005 are enacted?

On average, the hydropower licensing process takes approximately eight years at a cost of about $1 million per year in process costs. With that said, there are many projects that have taken much longer, and have been much more costly.

The vast majority of licensees begin the licensing process more than five years prior to the expiration of their existing license in order to develop all of the information necessary to support an application, and to give the public their many opportunities to participate in the process.

While the *Energy Policy Act of 2005* adds procedural opportunities to the licensing process, the time it takes to pursue these opportunities in most cases can run concurrently with FERC's existing licensing process, and therefore should not increase the overall time it takes to relicense a project. Furthermore, the bill without question will prevent much of the lengthy, costly and contentious litigation often seen today after a final license is issued.

By reducing the number of court appeals of license conditions, this bill could help shorten the time it take to reach finality in a license proceeding thereby facilitating earlier implementation of environmental mitigation and enhancement measures. What's more, the primary goal of hydropower licensing reform is to improve the process, not shorten it. While improved timing is a worthy goal, licensing reform is about creating a process that produces better results, and that is what the *Energy Policy Act of 2005* accomplishes.

Question 8
Why are 21,000 megawatts of hydroelectric capacity sitting unused at existing hydroelectric facilities today? Why isn't it economic to use this unused capacity?

Less three percent of the nation's 75,000 dams produce electricity. The 21,000 MW to which you refer represents total unused capacity available at all existing dams. This includes hydropower dams and non-hydropower dams (water supply dams, irrigation dams, flood control dams, etc.). The Department of Energy identified this potential in a 1999 resource assessment.

The 21,000 megawatts of hydropower capacity that sits unused at existing hydropower facilities and non-hydropower dams could be developed *without* building new dams or impoundments. This is enough power for eight cities the size of Seattle or enough power for the state of Virginia. It is enough yearly power for 6.9 million homes.[6] It would also result in the avoidance of 42 million metric tons of carbon emissions each year.

Of the 21,000 MW identified by DOE, 4,300 MW of new hydropower could be achieved through efficiency improvements and capacity additions at existing hydropower dams. This potential development is known as "incremental hydropower." There is enough incremental hydropower potential to meet the electricity needs of the states of New Hampshire and Vermont. Put another way, it is enough yearly power for 1.4 million homes.

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[6] Using a 40% capacity factor.

Unfortunately, almost none of the nation's potential hydropower capacity is being developed. Bringing new hydro generation on-line is capital intensive, and the costs are increasing. In addition, hydropower faces costly regulatory hurdles of new development not faced by other resources. In most cases, it takes several years to bring incremental hydropower generation on-line. The process is site-specific, and project owners go through environmental studies, modeling, turbine design, bidding, licensing, installation, and testing before the benefits of this incremental hydropower can be fully realized.

While the costs clearly vary from project to project, new hydro generation – depending on the type of upgrade – runs from $650 to more than $2,500 per kilowatt (Kw). This is similar to the development costs for other renewable technologies. In short, hydropower faces similar challenges in today's energy markets as other renewables and deserves similar policies designed to encourage the development of renewable sources of power, whether it is a Section 45 Production Tax Credit (PTC), a Renewable Portfolio Standard (RPS), or other mechanism.

In its Report, the National Commission on Energy Policy recommended that Congress expand the renewable energy production tax credit to include "new hydropower generation." During the 107th and 108th Congresses, members in both the Senate and the House, on both sides of the aisle, introduced 15 bills that recognized the hurdles to new hydropower development by providing incentives, including H.R. 6. The *Energy Policy Act of 2005* also provides incentives for hydropower development. These incentives are unlikely to come to fruition as the incentives would come through the appropriations process, a highly unlikely scenario given the recent treatment of hydro in the appropriations process, as well as general budget concerns on Capitol Hill.

Incentives work. One need only look at the recent growth of the wind energy industry, as well as some of the other renewable energy industries. And, one must also look at the last time there was any significant growth in the hydropower industry. That was in the late 1970s and early 1980s, when Congress last provided incentives for hydropower development. Those incentives resulted in approximately 10,000 MWs of clean energy being placed on the electricity grid. It's time to provide incentives again.

Considering the bipartisan support for upgrading existing hydropower facilities and maximizing the power output of the nation's existing hydropower facilities, as well as the nation's growing need for clean, domestic, reliable energy, it is time for Congress to ensure that hydropower's potential capacity is fully developed. The only way to do that is to adopt incentives for hydropower development. Without incentives, this valuable potential will continue to sit unused at a time when it is most needed. NHA strongly urges Congress to include a role for hydropower in its renewable energy development incentives.

Question 9
Is the Department of Interior rulemaking on the hydroelectric licensing process sufficient, or is legislation required? Why?

While NHA supports the Department of the Interior's effort to establish an administrative appeals process for mandatory conditions and prescriptions – something that is not available under today's licensing process – the rulemaking alone is not sufficient. Indeed, the Department's rulemaking and the hydro licensing reform legislation would achieve different goals. Each is needed and necessary, but neither is a substitute for the other.

At its essence, the Department's rulemaking would establish an administrative appeals process. NHA has long called for an appeals process for mandatory conditions, housed within either the federal mandatory conditioning agencies or FERC, that would increase agency accountability, add transparency to the licensing process, and reduce the number of licensing disputes that require review by the Court of Appeals. In addition, such an appeal process is consistent with the concurring opinion in *Wisconsin Power & Light Company v. FERC*, 363 F.3d 453 (C.A.D.C. 2004), which questions "whether Interior can develop all of its evidence internally, without affording the applicant some sort of hearing."

In light of the importance of hydropower projects to the nation's air quality, economy, energy security, and electric power grid reliability, it behooves all involved in the licensing process to act deliberately and with an eye to the broad public interest. Those, like DOI, who have mandatory conditioning authority bear a special burden in that regard. The Department should use the authorities under FPA Sections 4(e) and 18 to craft mandatory conditions and prescriptions (MCPs) judiciously, and should pursue policies that require decision-making to be transparent to those affected and accountable to the public interest. The rulemaking is a step in that direction.

However, even if the Department's rule were adopted, it would only apply to Interior, and NHA continues to have some concerns with the proposed rule. These concerns were made clear to the Department when NHA filed its comments. While adoption of a modified rule would represent a positive step towards licensing reform, two other federal resource agencies with mandatory conditioning and prescription authority (Commerce and Agriculture) would not be affected by the rule. No licensing process reforms would be applied to those agencies.

For licensing reform to be truly effective, it should apply to all federal resource agencies with mandatory conditioning and prescription authority. Otherwise, the licensing process becomes a patch-work quilt of different rules and processes for each agency, which defeats the purpose of reform – to create a licensing process that provides transparency, certainty, accountability while producing better decisions and results.

Even if the Department addresses these concerns and adopts a rule with an effective mandatory condition appeals process, this regulatory change would not obviate the need for the hydro licensing reform language in the bill. The bill does three things completely unrelated to a mandatory condition appeals process.

First, it would allow the opportunity for an expedited trial- type hearing on disputed issues of material fact. This hearing is not a challenge to the mandatory condition itself, but is a mechanism for testing the soundness of the scientific or other basis for the mandatory condition. Second, the bill would allow license applicants and others to offer an alternative to the mandatory condition developed by the conditioning agency, and require the agency secretary to document its consideration of the mandatory conditions. Again, this alternative condition provision is not an administrative appeal of the agency's mandatory condition. Third, the bill would authorize FERC (and only FERC) to initiate a dispute resolution process in the event that FERC determines a mandatory condition to be inconsistent with the purposes of Federal Power Act. The bill makes clear that this dispute resolution process is not binding on the agency secretary, and that the secretary "may" accept the recommendation of the dispute resolution panel "unless" the recommendation does not meet the agency's resource protection goals. Nothing about this FERC-initiated dispute resolution process gives a license applicant any administrative appeal right as provided in the Department's proposed rulemaking.

Finally, even if regulatory changes are made, the statutory licensing reform measures are necessary because changes to the Federal Power Act are more permanent in nature than are regulatory changes. Rulemakings that establish agency policy can be rewritten, overturned or waived at any given time by any Administration. This would only add uncertainty to the licensing process, which is already a significant concern. In sum, the most appropriate, effective, and certain way to address the fundamental problem with the licensing process – how agencies exercise their mandatory conditioning and prescription authority – is to change those sections of the Federal Power Act that grant the agencies this conditioning prescription authority.

Question 10
Please describe the appeals process currently and how the process may change under the bill? Please explain.

There presently is no administrative appeals process available to an applicant or non-applicant stakeholder under any of FERC's three hydropower licensing processes (Integrated Licensing Process, Traditional Licensing Process, Alternative Licensing Process). Additionally, there presently is no appeals process at any of the three federal resource agencies with mandatory conditioning authority (Interior, Commerce, and Agriculture).

The only opportunity available to a license applicant to challenge either the scope of or need for a mandatory condition is in the federal court system after FERC issues its license. In other words, a licensee waits for FERC to include the conditions in the license, requests rehearing of that license order (which FERC has no authority to grant), and then files a petition for review in the appropriate federal circuit court of appeals.

If, however, a non-applicant stakeholder wishes to challenge a mandatory condition as not going far enough in terms of resource protection, that stakeholder has a meaningful administrative appeal opportunity at FERC because FERC has the authority, through its rehearing process, to add additional measures to a hydropower license beyond those required by the mandatory conditioning agency. For this reason, non-applicant stakeholders have an opportunity for administrative appeal that is not available to the license applicant.

The *Energy Policy Act of 2005* does not establish an appeals process. The bill simply allows a license applicant to offer an alternative condition to that proposed by a federal resource agency. If the agency Secretary determines that the alternative condition meets existing statutory requirements for environmental and resource protection, and costs less, or has less of an impact on power generation than the condition proposed by the agency, the Secretary accepts the alternative condition.

If, on the other hand, the Secretary determines that the alternative does not adequately meet Federal Power Act resource standards, the alternative condition is rejected. The decision-making authority lies with the federal resource agency – not FERC and not the license applicant. As noted in the response to the previous question, neither this alternative mandatory condition opportunity, nor any of the other measures provided for in the bill, amounts to an appeals process.

ATTACHMENT 1

REPLY OF JAMES H. HANCOCK, JR.
TO CHAIRMAN RALPH HALL
FOLLOW-UP QUESTIONS
FROM
ENERGY & AIR QUALITY SUBCOMMITTEE HEARING
ON
THE *ENERGY POLICY ACT OF 2005*
FEBRUARY 16, 2005

THE ENERGY POLICY ACT OF 2005 PRESERVES THE ROLE OF STATES, FEDERAL RESOURCE AGENCIES, TRIBES, ENVIRONMENTALISTS AND OTHERS IN THE LICENSING PROCESS

The FERC hydroelectric licensing process provides a greater decision-making role for States, federal resources agencies, and Indian tribes than any other federal energy facility licensing or permitting process. The hydro licensing process also provides for an extraordinary amount of public input into licensing decisions from environmentalists and others. The *Energy Policy Act of 2005* completely preserves this broad dispersion of licensing authority and extensive opportunities for public input.

This document highlights the roles of the various non-applicant stakeholders during the licensing process, which typically begins five years prior to the expiration of an existing license to ensure the dispersion of decision-making authority and the extensive opportunities for public participation.

STATES

- Section 401 of the Clean Water Act authorizes States to impose a broad range of license conditions on hydropower projects at relicensing, including conditions related to water quality and flows and "any other appropriate requirement of State law." FERC must include all State 401 conditions in a license. FERC may not issue a hydroelectric license if a State denies 401 certification.

- Section 10(j) of the Federal Power Act (FPA) requires FERC to accept conditions relating to fish and wildlife recommended by State fish and wildlife agencies unless it determines they are inconsistent with the FPA.

- FERC considers licensing recommendations made by States on other licensing issues under Section 10(a) of the FPA.

- Coastal Zone Management Act permits coastal States to condition or veto the issuance of hydroelectric licenses in the "coastal zone" if the State deems the license "inconsistent" with an approved Coastal Zone Management Plan.

- States may participate as parties in FERC licensing proceedings, request rehearing of any license order and legally challenge FERC licenses in the federal court of appeals.

- States may participate in the FERC relicensing NEPA process.

- Commission regulations require licensees to consult with state resource agencies regarding licensing before filing a license application.

- National Historic Preservation Act Section 106 consultation with State Historic Preservation Officers.

- There are at least seven different points in the hydroelectric licensing process for States to formally comment on licensing matters:

    1. Comments on licensee notice of intent to file application.
    2. Comments on NEPA scoping and initial study requests.
    3. Comments on study results and additional study requests.
    4. Comments on preliminary draft NEPA document and draft application.
    5. Comments on license application.
    6. Comments on draft NEPA document.
    7. Comments and/or request for rehearing on license order.

- States play a major role in FERC's collaborative alternative licensing process whose primary purpose is to facilitate comprehensive licensing settlements with all stakeholders.

THE *ENERGY POLICY ACT OF 2005* COMPLETELY PRESERVES ALL OF THE ABOVE

FEDERAL RESOURCE AGENCIES

- Section 18 of the FPA requires FERC to include in a license fishway prescriptions established by the Fish and Wildlife Service (resident fish) and the National Marine Fisheries Service (anadromous fish).

- Section 4(e) of the FPA requires FERC to include in a license conditions necessary to provide for the "adequate protection" of Forest Service and Department of Interior "reservations" occupied by a hydroelectric project.

- Section 10(j) of the Federal Power Act (FPA) requires FERC to accept conditions relating to fish and wildlife recommended by federal fish and wildlife agencies unless it determines they are inconsistent with the FPA.

- FERC considers licensing recommendations made by federal resource agencies on other licensing issues under Section 10(a) of the FPA.

- Endangered Species Act (ESA) requires FERC to consult with the Fish and Wildlife Service and National Marine Fisheries Service to assure that a new license is "not likely to jeopardize" endangered or threatened species or adversely impact their habitat. FERC must include license conditions in any new license to assure compliance with ESA. FERC may not issue a license which jeopardizes endangered species.

- Federal resource agencies may participate as parties in FERC licensing proceedings, request rehearing of any license order and legally challenge FERC licenses in the federal court of appeals.

- Federal resource agencies may participate in the FERC hydroelectric licensing NEPA process.

- Commission regulations require licensees to consult with federal resource agencies regarding licensing before filing a license application.

- There are at least seven different points in the hydroelectric licensing process for federal resource agencies to formally comment on licensing matters.

    1. Comments on licensee notice of intent to file application.
    2. Comments on NEPA scoping and initial study requests.
    3. Comments on study results and additional study requests.
    4. Comments on preliminary draft NEPA document and draft application.
    5. Comments on license application.
    6. Comments on draft NEPA document.
    7. Comments and/or request for rehearing on license order.

- Federal resource agencies play a major role in FERC's collaborative alternative licensing process whose primary purpose is to facilitate comprehensive licensing settlements with all stakeholders.

THE *ENERGY POLICY ACT OF 2005* COMPLETELY PRESERVES ALL OF THE ABOVE

TRIBES

- Section 4(e) of the FPA requires FERC to include in a license conditions deemed necessary by the Bureau of Indian Affairs (BIA) to provide for the "adequate protection" of an Indian reservation occupied by a hydroelectric project. BIA works closely with Tribes to develop these conditions.

- Section 401 of the CWA authorizes Tribes that have obtained "treatment as a State" status under the CWA to impose a broad range of license conditions on hydropower projects within their reservation's, including conditions related to water quality and flows FERC must include all Tribal 401 conditions in a license.

- FERC considers licensing recommendations made by Indian Tribes on other licensing issues under Section 10(a) of the FPA.

- National Historic Preservation Act Section 106 consultation with Tribal Historic Preservation Officers.

- Commission regulations require licensees to consult with "any Indian Tribe that may be affected by the Project" before filing a license application.

- Tribes may participate as parties in FERC licensing proceedings, request rehearing of any license order and legally challenge FERC licenses in the federal court of appeals.

- Tribes may participate in the FERC hydroelectric licensing NEPA process.

- **There are at least seven different points in the hydroelectric licensing process for Tribes to formally comment on licensing matters.**

  1. Comments on licensee notice of intent to file application.
  2. Comments on NEPA scoping and initial study requests.
  3. Comments on study results and additional study requests.
  4. Comments on preliminary draft NEPA document and draft application.
  5. Comments on license application.
  6. Comments on draft NEPA document.
  7. Comments and/or request for rehearing on license order.

- Tribes play a major role in FERC's collaborative alternative licensing process whose primary purpose is to facilitate comprehensive licensing settlements with all stakeholders

- **FERC's ILP established a tribal liaison office and called for increased "government to government consultation" between Tribes and FERC.**

THE *ENERGY POLICY ACT OF 2005* COMPLETELY PRESERVES ALL OF THE ABOVE

ENVIRONMENTAL GROUPS (NON-APPLICANT STAKEHOLDERS/PUBLIC)

- **Environmental groups may participate as parties in FERC licensing proceedings, request rehearing of any license order and legally challenge FERC licenses in the federal court of appeals.**

- **Environmental groups may participate in the FERC hydroelectric licensing NEPA process.**

- **There are at least seven different points in the hydroelectric licensing process for environmental groups to formally comment on licensing matters:**

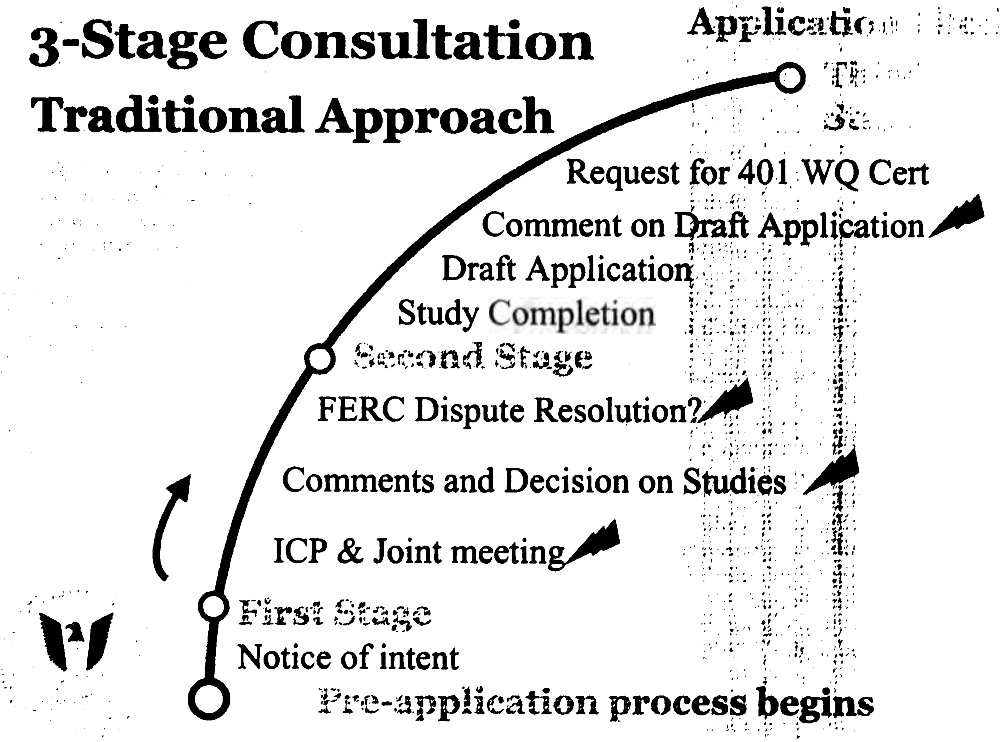
  1. **Comments on licensee notice of intent to file application.**
  2. **Comments on NEPA scoping and initial study requests.**
  3. **Comments on study results and additional study requests.**
  4. **Comments on preliminary draft NEPA document and draft application.**
  5. **Comments on license application.**
  6. **Comments on draft NEPA document.**
  7. **Comments and/or request for rehearing on license order.**

- **Environmental groups play a major role in FERC's collaborative alternative licensing process whose primary purpose is to facilitate comprehensive licensing settlements with all stakeholders**

- **FERC's proposed hydroelectric licensing rule requires licensees to formally consult with non-governmental organizations such as environmental groups prior to filing a license application.**

THE *ENERGY POLICY ACT OF 2005* COMPLETELY PRESERVES ALL OF THE ABOVE

3-Stage Consultation
Traditional Approach



Applicatio[illegible]

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Request for 401 WQ Cert

Comment on Draft Application

Draft Application

Study Completion

Second Stage

FERC Dispute Resolution?

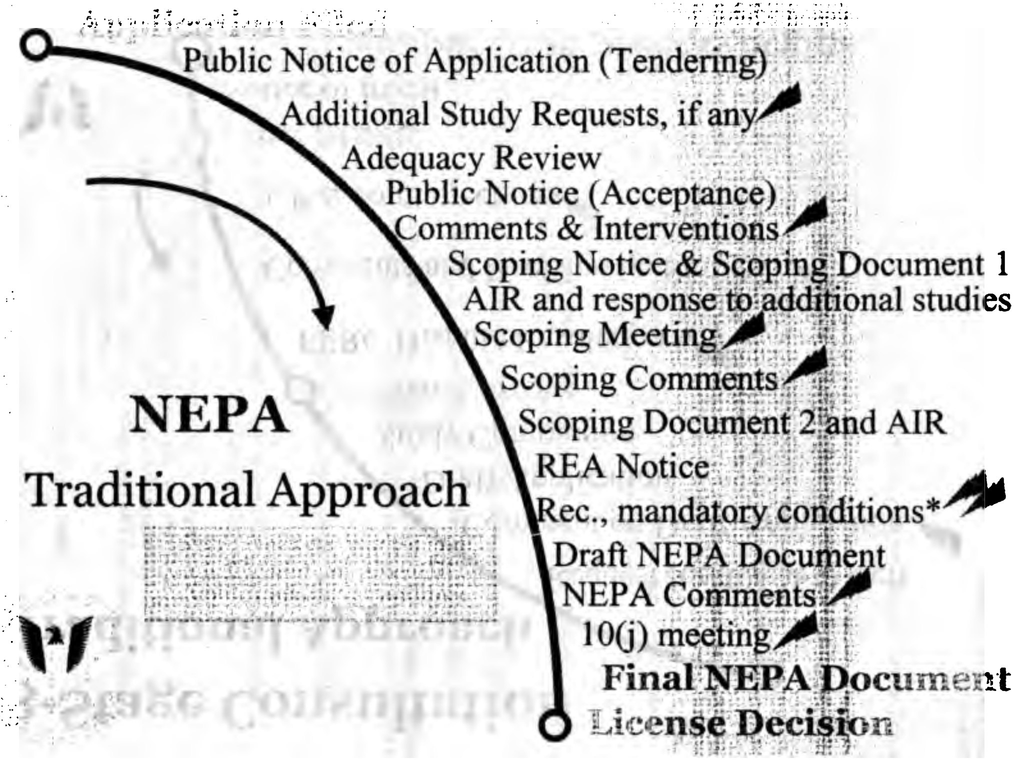
Comments and Decision on Studies

ICP & Joint meeting

First Stage

Notice of intent

Pre-application process begins



NEPA

Traditional Approach

Public Notice of Application (Tendering)
Additional Study Requests, if any
Adequacy Review
Public Notice (Acceptance)
Comments & Interventions
Scoping Notice & Scoping Document 1
AIR and response to additional studies
Scoping Meeting
Scoping Comments
Scoping Document 2 and AIR
REA Notice
Rec., mandatory conditions*
Draft NEPA Document
NEPA Comments
10(j) meeting
Final NEPA Document
License Decision

Form: All Guided Search Forms > News
Terms: (arctic national wildlife refuge) and date(geq (1/22/05) and leq (1/25/05)) (Edit Search)

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HIGHLIGHT:
* Congress should mandate higher vehicle mileage standards and allow drilling in a limited portion of the **Arctic National Wildlife Refuge.**

BODY:
Whenever a national energy policy is debated, two controversial issues come to the fore.

One is whether to set higher federal mileage standards for passenger vehicles, a proposal usually fought by U.S. automakers. The other is whether to permit drilling for oil in areas such as Alaska's pristine **Arctic National Wildlife Refuge,** a proposal customarily disparaged by environmental groups.

The chronic impasse on these two hot-button topics symbolizes the unwillingness of opposing sides to compromise on major energy issues and the resulting failure of Congress to adopt a badly needed national energy policy.

It's time to break the logjam.

A wide-ranging policy is needed to enhance domestic energy production, accelerate development of promising new technologies, increase energy conservation and reduce America's addiction to foreign oil.

If Congress and special-interest groups are to end the stalemate on energy policy, they must show a greater ability to compromise and see all sides of issues.

A national energy policy should mandate a significant increase in vehicle mileage standards and permit drilling in a limited portion of the Arctic refuge.

These two proposals were part of a litany of potential components of a comprehensive policy listed in a Sunday editorial.

Federal mileage standards could be boosted by five to 10 miles per gallon over the next decade -- a marked increase over the current combined car and light-truck fuel economy level of about 24 mpg.

The Star-Telegram has repeatedly urged higher CAFE standards, so we won't belabor that topic. But we need to outline in more detail the support for limited drilling in the Arctic refuge, an issue on which the Editorial Board has commented only sparingly.

In a 1995 editorial that touched on several energy issues, we concluded that "there remains a need to explore the **Arctic National Wildlife Refuge** more fully.

"If there are indeed huge [oil] reserves there, they should be developed carefully," the editorial said.

In a 2001 editorial, we ambivalently concluded: "There are legitimate concerns on both sides of the explosive issue of whether to drill in the **Arctic National Wildlife Refuge** of Alaska. Why not hold congressional hearings in which the pros and cons can be discussed in great detail?"

Now, as America continues devouring more foreign oil amid sharply higher energy prices, we believe it is time for Congress to allow drilling in part of the refuge.

But we support such drilling only if Congress simultaneously adopts substantially higher vehicle mileage standards.

We should permit drilling because the refuge is one of the premier oil prospects in the United States. Substantial production from the refuge would significantly reduce the nation's reliance on foreign oil from troubled hot spots such as the Middle East. It also would provide thousands of good-paying jobs to help maintain a strong domestic energy industry.

The U.S. Geological Survey has estimated that the refuge contains 10.4 billion barrels of recoverable oil in a coastal plain of 1.5 million acres -- the only part of the refuge being considered for drilling.

A U.S. Energy Information Administration report released last year estimated that refuge oil production could begin by 2013 and peak at 876,000 barrels a day by 2025.

That would make domestic production about 20 percent greater than it would be without the refuge's oil, the EIA estimated.

Opponents say drilling would endanger wildlife in the refuge, a haven for Porcupine caribou, polar bears, musk oxen and huge numbers of migratory birds.

However, the area being considered for drilling constitutes only 8 percent of the 19 million-acre refuge (which is about the size of South Carolina) and less than 0.5 percent of Alaska's 365 million total acres.

Strong environmental regulations can be imposed on drilling to ensure that negative environmental impacts are limited. Today's exploration and drilling methods are less invasive than those of earlier days and leave a considerably smaller "footprint," thanks to technological advances such as horizontal drilling.

Nevertheless, legitimate concerns exist.

Drilling could result in a sizable infrastructure of oil wells, pipelines, roads, and housing and office facilities for workers. In addition, the coastal plain is the calving grounds for the Porcupine caribou.

Drilling should be permitted only if strong environmental safeguards are in place.

Some oil companies might elect not to drill because the refuge's petroleum deposits are believed to be scattered in modest-sized accumulations rather than a huge, concentrated pool. That could make drilling, production and transmission considerably more costly than in the enormous Prudhoe Bay oilfield development on Alaska's North Slope and approximately 60 miles west of the refuge.

Nevertheless, it's time to give the world's best oil finders an opportunity to see what petroleum riches lie below the refuge's coastal plain.

A proposed $20 billion, 3,500-mile Alaskan natural gas pipeline also should be built to allow transmission of huge reserves of North Slope gas to the lower 48 states.

But the new Alaskan oil and natural gas activity should be permitted only if Congress substantially raises vehicle mileage standards to encourage not only energy exploration and production but also energy conservation.

-PHOTO-
1. Photo: KRT/SUBHANKAR BANERJEE VIA SEATTLE TIMES
Tracks of a polar bear and cubs lead to their den on the coastal plain of the **Arctic National Wildlife Refuge** in Alaska.

2. Map(s): STAR-TELEGRAM/KRT
Oil drilling debate

LOAD-DATE: January 25, 2005

United States Environmental Protection Agency
December 1997

Office of Water
4304

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EPA

Drinking Water Advisory: Consumer Acceptability Advice and Health Effects Analysis on Methyl Tertiary-Butyl Ether (MtBE)

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LIST OF ABBREVIATIONS

DWEL	Drinking-Water-Equivalent-Level
HA	Health Advisory
kg	kilogram
L	liter
LOAEL	lowest-observed-adverse-effect level
MoE	margin of exposure
mg	milligram
MtBE	Methyl *tertiary*-butyl ether
MTD	Maximum Tolerated Dose
NOAEL	no-observed-adverse-effect level
OFW	odor free water
ppm	parts per million
μg	microgram
TBA	*tertiary*-butyl alcohol
VOC	volatile organic compound

FOREWORD

EPA's Human Health and Criteria Division (HECD)of the Office of Water developed an Advisory document for methyl *tertiary*-butyl ether (MtBE). This document is a non-regulatory document that analyses the currently available cancer and non-cancer data on this contaminant, as well as studies on its organoleptic (taste and odor) effects. The document is not a mandatory standard for action; however, this Advisory supersedes any previous drafts of drinking water advisories for this chemical.

There are many uncertainties and limitations associated with the toxicity data base for this chemical. The animal tests available to date (1997) were not conducted by exposing the animals to MtBE in drinking water, but rather by inhalation exposure or by introducing MtBE in oil directly to the stomach several times a week. Although useful for identifying potential hazards, limitations of the reported studies do not allow confident estimates of the degree of risk MtBE may pose to humans from low-level drinking water contamination. The toxicokinetic models are also limited in helping to perform an adequate extrapolation from the inhalation data to actual oral exposure from drinking water intake. Additional research is needed to resolve these issues before a more complete health advisory can be issued. Therefore, given the needs of the States and Regions for an Office of Water (OW) position on MtBE contamination of drinking water, HECD developed this "Drinking Water Advisory: Consumer Acceptability Advice and Health Effects Analysis on Methyl tertiary-Butyl Ether (MtBE)".

MtBE is generally unpleasant in taste and odor. Studies have been conducted on the concentrations of MtBE in drinking water at which individuals can detect the odor or taste of the chemical. This Advisory recommends that keeping levels of contamination in the range of 20 to 40 µg/L or below to protect consumer acceptance of the water resource would also provide a large margin of exposure (safety) from toxic effects.

The Advisory discusses the limitations of the current database for estimating a risk level for this contaminant in drinking water and characterizes the hazards associated with this route of exposure. This document has been peer reviewed both internally in the Agency and externally by experts in the field before its release to the public.

Note: In this Advisory, we use a risk characterization method called "Margin of Exposure (or safety)" which is different from traditional slope factors and reference doses (RfDs) as estimates of response to defined exposures. The "margin" is how far the environmental exposure of interest is from the lower end of the exposures at which animals or humans have shown some toxicity effect. The use of the margin of exposure approach is helpful in the following ways: 1. It allows for comparison of exposures associated with carcinogenic potential to those associated with non cancer health effects; 2. It provides the risk manager with a quick check to decide if the margin of exposure (safety) appears to be adequate even when mathematical extrapolation of data from high to low dose cannot be done; and 3. It gives a better understanding of the degree of risk associated with extrapolation of exposure data from animal studies to humans. For example, given the limited number of animals that usually can be used in experiments, they, at best, would detect a one in ten response (1 x 10^{-1}). A common procedure for carcinogens is to mathematically extrapolate from the exposure levels of animal tests to estimate risk at lower, environmental exposure levels. If the extrapolation is done as a straight line, a risk estimate of 1 x 10^{-6} generally corresponds to a margin of exposure of 100,000. If the true, but unknown, relationship is downward sloping, not a straight line, the risk at a 100,000 margin of exposure would be less than 1 x 10^{-6} and might be zero.

Health and Ecological Criteria Division
Office of Science and Technology
Office of Water

DRINKING WATER ADVISORY: CONSUMER ACCEPTABILITY ADVICE AND HEALTH EFFECTS ANALYSIS ON METHYL TERTIARY-BUTYL ETHER (MtBE)

EXECUTIVE SUMMARY

MtBE

MtBE is a volatile, organic chemical. Since the late 1970's, MtBE has been used as an octane enhancer in gasoline. MtBE promotes more complete burning of gasoline, thereby reducing carbon monoxide and ozone levels. Hence, MtBE is commonly used as a gasoline additive in localities that participate in the Winter Oxygenated Fuels program and/or the Reformulated Gasoline program to achieve or maintain compliance with the National Ambient Air Quality Standards. A limited number of instances of significant contamination of drinking water with MtBE have occurred due to leaks from underground and above ground petroleum storage tank systems and pipelines. MtBE, due to its small molecular size and solubility in water, moves rapidly into groundwater, faster than other constituents of gasoline. Public and private wells have been contaminated in this manner. Non-point sources, such as recreational watercraft, are most likely to be the cause of small amounts of contamination of surface waters. Air deposition through precipitation of industrial or vehicular emissions may also contribute to surface and ground water contamination. The extent of any potential for build-up in the environment from such deposition is uncertain.

This Advisory

The EPA Office of Water is issuing this Advisory to provide guidance for communities that may be exposed to drinking water contaminated with MtBE. The Advisory provides an analysis of current health hazard information and an evaluation of currently available data on taste and odor problems associated with MtBE contamination of water, as the latter affect consumer acceptance of the water resource. This Advisory does not recommend either a low-dose oral cancer risk number or a reference dose (RfD)[1] due to certain limitations of available data for quantifying risk. Guidance is given on the concentrations at which taste and odor problems likely would be averted, and how far these are from MtBE concentrations at which toxic effects have been seen in test animals. (The measure used is called a "margin of exposure" or MoE. For instance, if a measured concentration is 100,000 times less than the range of observation of effects in test animals, the margin of exposure is 100,000.

---

[1] Reference Dose is defined as "an estimate (with uncertainty spanning approximately an order of magnitude) of a daily exposure to the human population (including sensitive subgroups) that is likely to be without appreciable risk of deleterious effects over a lifetime" (U.S. EPA, 1987).

Conclusion and Recommendation

This Advisory recommends that keeping levels of contamination in the range of 20 to 40 µg/L or below to protect consumer acceptance of the water resource would also provide a large margin of exposure (safety) from toxic effects.

Taste and odor values are presented as a range, since human responses vary depending upon the sensitivities of the particular individual and the site-specific water quality conditions. These values are provided as guidance recognizing that water suppliers determine the level of treatment required for aesthetics based upon the customers they serve and the particular site-specific water quality conditions.

There are over four to five orders of magnitude between the 20 to 40 µg/L range and concentrations associated with observed cancer and noncancer effects in animals. There is little likelihood that an MtBE concentration of 20 to 40 µg/L in drinking water would cause adverse health effects in humans, recognizing that some people may detect the chemical below this range. It can be noted that at this range of concentrations, the margins of exposure are about 10 to 100 times greater than would be provided by an EPA reference dose (RfD) for noncancer effects. Additionally, they are in the range of margins of exposure typically provided by National Primary Drinking Water Standards under the Federal Safe Drinking Water Act to protect people from potential carcinogenic effects.

When adequate data become available, the Office of Water will publish another Advisory that includes quantitative estimates for health risks. This Advisory gives practical guidelines for addressing contamination problems and supersedes previous draft advisories. An Advisory does not mandate a standard for action.

Studies of MtBE Effects

There are no studies of effects on humans of long-term exposure to MtBE. All of the studies available for hazard assessment are laboratory animal studies.

Cancer effects. There are studies in rodents of the carcinogenicity of MtBE, as well as its metabolites, *tertiary*- butyl alcohol (TBA) and formaldehyde. The only oral cancer exposure study was conducted by Belpoggi and coworkers (1995).

They gave MtBE to Sprague-Dawley rats (gavage in olive oil, at doses up to 1,000 mg/kg/day, 4 days per week for two years). Exposure caused a dose-related increase in the incidence of combined leukemia and lymphomas in the female rats and an increase in Leydig cell adenomas (benign testicular tumors) in the high-dose male rats. Use of this study to quantitatively assess risks from drinking water exposure has limitations. There are potential differences in bolus versus drinking water exposures and possible vehicle (olive oil) effects. Moreover, there are few details on the actual reported tumor response data provided in the report. The lack of histopathological diagnoses and of individual animal data were reasons that the National Research Council panel recommended not using these tumor data in risk estimation until after a thorough peer review of this study.

There are two studies on the potential carcinogenicity of MtBE after inhalation exposure.
Chun et al. (1992) administered MtBE to F344 rats at concentrations up to 8,000 ppm for 2 years. Exposure to MtBE caused an increase in the incidence of combined renal tubular adenomas and carcinomas, as well as Leydig cell adenomas of the testes in the male rats. The mild induction of α-2u-globulin by MtBE suggested that this protein may have played a role in male rat kidney tumorigenesis. The increase in the incidence of Leydig cell adenomas of the male rats in this study was not significantly different from the historical control value, although the difference from the concurrent controls was significant. Induction of Leydig cell tumors was also observed in Sprague-Dawley rats after oral exposure by gavage (Belpoggi et al., 1995) and lends support to the conclusion that the appearance of the tumor in both studies is treatment-related.

In the other inhalation study, Burleigh-Flayer et al. (1992) gave MtBE to CD-1 mice at concentrations up to 8,000 ppm for 18 months. This exposure was associated with a statistically significant increase in the incidence of hepatocellular carcinomas in male mice and of hepatocellular adenomas in female mice., The Chun et al. (1992) and the Burleigh-Flayer et. al. (1992) studies currently cannot be used to calculate adequate hazard advisory values since we have no well-developed pharmacokinetic model for converting a chronic inhalation exposure of MtBE to an equivalent oral exposure. On-going work may support route-to-route extrapolation in the future.

The potential carcinogenicity of two metabolites of MtBE, TBA and formaldehyde has also been examined. In F344 rats, TBA has provided some evidence of carcinogenic activity in the males (but not in the female rats). In B6C3F1 mice, TBA exposure gave equivocal evidence of carcinogenic activity in male mice based on marginally increased incidence of thyroid tumors, and some evidence of carcinogenicity in female mice, based on an increased incidence of follicular cell hyperplasia and follicular cell adenomas of the thyroid gland. Data for carcinogenic activity is ambiguous for drinking water exposure to formaldehyde. A study by Soffritti et al. (1989) reported a dose-related increase in the incidence of leukemia and intestinal tumors in Sprague-Dawley rats. However, the experimental data presented in this publication was limited. Another drinking water study on formaldehyde by Til and coworkers (1989), using Wistar rats, found no evidence of carcinogenicity.

The carcinogenicity data support a conclusion that MtBE poses a potential for carcinogenicity to humans at high doses. The data do not support confident, quantitative estimation of risk at low exposure due to the limitations described above.

Noncancer toxicity. The collective evaluation of the reproductive and developmental studies of MtBE in animals indicate that inhalation exposure can result in maternal toxicity and adverse effects on the developing fetus (Bushy Run Research Center, 1991, 1989a, 1989b; Conaway et al., 1985). The fetal toxicity in the mouse developmental studies indicate that it may be more sensitive to inhalation of MtBE vapors than the rat or rabbit during gestation. However, it is possible to conclude that, at low concentrations, MtBE does not cause a developmental or reproductive hazard by inhalation in three different animal species. This also suggests that humans may not be at risk when exposed to very low concentrations of MtBE.

Effects on the kidney were observed in rats after oral and inhalation exposure to MtBE. The most pertinent noncancer toxicity data come from a 90-day oral exposure study in rats. The authors reported minimal effects on the kidneys at doses of 300 mg/kg/day and above (Robinson et al., 1990). In these animals, the MtBE was given once a day, as a bolus dose in corn oil. A single oral dose of MtBE in corn oil would not be considered representative of an intermittent exposure to MtBE that one would normally obtain from drinking water containing MtBE. In a longer term inhalation study, histopathological abnormalities were apparent (Chun et al., 1992). Uncertainties exist in quantifying risk from the oral data in the short-term study because of the bolus gavage dosing regime and the less-than-lifetime duration of the study. The uncertainty in extrapolating between routes affects the interpretation of the inhalation data.

The studies support a conclusion that MtBE can pose a hazard of noncancer effects to humans at high doses. The data do not support confident quantitative estimation of risk at low exposure.

Taste and Odor. Studies were conducted on the concentrations of MtBE in drinking water at which individuals respond to the odor or taste of the chemical. Human responses vary widely in this respect. Some who are sensitive can detect very low concentrations, others do not taste or smell the chemical even at much higher concentrations. Moreover, the presence or absence of other natural or water treatment chemicals can mask or reveal the taste or odor effects. Thus, variable preexisting water conditions around the country will increase variability in the acceptability of MtBE's presence in drinking water.

The studies have not been extensive enough to completely describe the extent of human variability, or to establish a population threshold of response. Nevertheless, the available studies allow a conclusion that keeping concentrations in the range of 20 to 40 micrograms per liter (µg/L) of water or below will likely avert unpleasant taste and odor effects, recognizing that some people may detect the chemical below this range.

Characterization Summary

Section 7.0 on hazard and dose response characterization summarizes the MtBE data. In this section, a table (Table 1) presents the margins of exposure comparing animal effects and human taste and odor data.

amwa

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February 15, 2005

The Honorable Joe Barton
Chairman
Committee on Energy and Commerce
U.S. House of Representatives
Washington, DC 20515

Re: MTBE Industry Misinformation on the Liability Waiver

Dear Mr. Chairman:

On behalf of the largest publicly owned drinking water utilities in the United States, I respectfully request that the Committee on Energy and Commerce hold a hearing specifically on the MTBE liability waiver sought by the petroleum industry. There does not appear to be a witness at the February 16, 2005 hearing from local government to address the significant impacts of the MTBE liability waiver on communities and their water systems.

AMWA would like the opportunity to correct misinformation being disseminated on this issue. The petroleum industry has propagated an enormous amount of misleading information regarding the liability waiver and the motivations of communities and their water systems in fighting the waiver.

Perhaps the biggest fallacy from the industry is that the producers would still be liable if Congress shields them from product defect liability. But taking away product defect liability leaves only basic negligence, which only reaches as far as the tank owners. While service station owners may be responsible to some extent, these small, family businesses are only a fraction of the problem. The MTBE producers are clearly responsible for creating MTBE and putting it into commerce despite knowing its dangers to drinking water.

The industry attempts to characterize our position as being driven by trial lawyers. Instead, because states and communities stand to suffer severe financial and water resource impacts due to MTBE contamination, lawsuits are being initiated by states attorneys general, mayors, water utility executives and even school districts. Suing MTBE producers is a last resort for state and local governments, but without the threat of product liability suits, MTBE producers have no incentive to come to the negotiating table.

One of the most significant pieces of misleading information that needs correcting is the petroleum industry's contention that MTBE was mandated in 1990, and, thus, the industry should not pay for cleanup. In fact, there was no mandate. But regardless, these companies put this defective product into commerce as an octane enhancer long before 1990.

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Cleveland Division of Water

Edmund Archuleta
El Paso Water Utilities

David Denig-Chakroff
Madison Water Utility

Diane VanDe Hei
Executive Director

Finally, if you accept their argument, albeit incorrect, that there was a federal mandate to use MTBE, then why does the energy bill have no provisions to help utilities clean up the contaminant? The industry points to the Leaking Underground Storage Tank Trust Fund as the solution. But neither the current LUST program nor the proposed amendments to it adequately address contaminated aquifer cleanup. Plus, the trust fund is woefully under-financed, and the revenue source for the fund expires this summer. MTBE is a multi-billion-dollar problem, and communities and water consumers should not be burdened with one dime of it.

We appreciate your consideration, and we look forward to your response.

Sincerely,

Diane VanDe Hei
Executive Director

February 16, 2005

The Honorable Joe Barton
Chairman
House Committee on Energy and Commerce
2125 Rayburn House Office Building
Washington, DC 20515

Dear Chairman Barton:

On behalf of the nation's mayors, The United States Conference of Mayors respectfully requests an opportunity to testify before the House Committee on Energy and Commerce regarding proposed language in the Energy Policy Act of 2005 that would provide liability immunity to the producers of gas additive methyl tertiary butyl ether (MTBE). After reviewing the list of witnesses scheduled to appear at a hearing before the Subcommittee on Energy and Air Quality, the Conference is concerned about the absence of the perspective of local governments.

The Conference of Mayors would like the opportunity to testify before the committee about the multi-billion dollar unfunded mandate local governments would bear if the MTBE liability waiver language is adopted. As worded, the liability waiver language would invalidate any MTBE-related lawsuit that has been filed since September 5, 2003, thereby precluding municipalities and other local governments from recouping the costs of cleaning MTBE-contaminated drinking water supplies. Fairness and the principles of federalism dictate that Congress should not force cash-strapped local governments to bear the cost of cleaning MTBE contaminated drinking water supplies.

As the premier bipartisan organization that represents America's cities with populations of 30,000 or more, the Conference welcomes the opportunity to address the Committee about the negative impact of the liability waiver language on local governments. The Conference asks that the Committee consider holding the record open so as to afford local governments and other interested parties the opportunity to supplement tomorrow's hearing record.

The Conference looks forward to working with the committee and both chambers regarding the Energy Policy Act of 2005, and in particular the MTBE-liability waiver. In closing, the Conference reiterates its interest in testifying before your Committee regarding this important matter.

Sincerely,

Tom cochran

Tom Cochran
Executive Director

American Water Works Association

The Authoritative Resource for Safe Drinking Water℠

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February 15, 2005

The Honorable Joe Barton, Chair
The Committee on Energy and Commerce
2125 Rayburn House Office Building
Washington, DC 20515

Re: Request to testify at hearing on Energy Policy Act of 2005

Dear Chairman Barton:

On behalf of the over 57,000 members and over 4,700 drinking water utilities of the American Water Works Association (AWWA), I respectfully request that the Committee on Energy and Commerce hold a hearing on MTBE product liability waiver that has been included in draft Energy Policy Act legislation. It is my understanding that the Subcommittee on Energy and Air Quality will hold a hearing on the Energy Policy Act of 2005 on February 16, 2005. We are concerned that the Committee may not have witnesses scheduled that can comprehensively address the significant impact of the MTBE product liability waiver on communities and their water systems. We are equally concerned that our organization was not contacted by the Committee to provide testimony on this issue.

In the interim until a hearing on this issue can be held, we respectfully request that our organization be afforded the opportunity to supplement tomorrow's hearing record with additional testimony regarding the issue of MTBE contamination, remediation, and the liability waiver that has been inserted into the draft Energy Policy Act of 2005.

We do not believe that the Congress has the complete information on the record concerning the extent of MTBE contamination of drinking water sources throughout the nation, the cost implications to the citizens of local communities, the liability of oil producers and distributors for contamination of drinking water supplies, the need for product defect liability to address relief for public water systems and the lack of a federal mandate to use MTBE in reformulated gasoline.

In addressing the Energy Policy Act of 2005, and in particular in addressing the provisions relating to MTBE, the Subcommittee and full Committee will be facing extremely complicated issues. I hope you will consider our request to submit testimony and bring relevant information before the Subcommittee.

Sincerely,

Tom Curtis

Tom Curtis
Deputy Executive Director

cc: The Honorable John Dingell
Ranking Member

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February 15, 2005

The Honorable Joe Barton, Chair
The Committee on Energy and Commerce
2125 Rayburn House Office Building
Washington, DC 20515
(202) 225-1919

Re: Request to testify at hearing on Energy Policy Act of 2005

Dear Chairman Barton:

It is my understanding that the Subcommittee on Energy and Air Quality will hold a hearing on the Energy Policy Act of 2005 on February 16, 2005. I respectfully request that I be added to the witness list for the hearing to address issues such as U.S. refining capacity and Clean Air Act New Source Review requirements. I believe I can provide a useful perspective on such issues.

I am the director of the Environmental Integrity Project, an organization that advocates for effective enforcement of environmental laws. Previously, I served as Director of U.S. EPA's Office of Regulatory Enforcement, where I had a role in negotiating a series of Clean Air Act settlements with refineries. I have attached my pervious testimony before this Committee, which I ask be included in the record.

I am requesting the opportunity to update that testimony and bring to the Committee relevant information regarding refineries and energy policy that likely will not be presented by other witnesses. For example, contrary to other testimony before the Subcommittee, U.S. EPA has stated in two separate letters to Mr. Dingell that there are currently no closed refineries which would reopen but for environmental permitting complications. Likewise, the new refinery in Arizona, referred to in previous testimony, was issued a permit in 1992 but the company failed to begin construction. In October 2003, Arizona Clean Fuels notified the state that it had decided to relocate the project to Yuma and submitted a new permit application. The application for the new proposed refinery was pending for less than one year, not the ten years previously suggested.

In addressing the Energy Policy Act of 2005, and in particular in addressing refining and New Source Review issues, the Subcommittee will be facing extremely complicated issues. I hope you will consider my request to testify and bring relevant information before the Subcommittee.

Sincerely,

Eric Schaeffer

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Member
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Congreſs of the United States
House of Representatives
Washington, DC 20515–0529
HENRY A. WAXMAN
29th District, California

May 31, 2000

Mr. Red Cavaney
President and Chief Executive Officer
American Petroleum Institute
1220 L Street, NW
Washington, DC 20005-4070

Dear Mr. Cavaney:

As you know, Congress may soon consider legislation to significantly reduce production and use of methyl tertiary butyl ether (MTBE). I am writing to request information that will be of great assistance in this effort.

Your work with the Northeast States for Coordinated Air Use Management (NESCAUM) and the American Lung Association (ALA) has resulted in a proposal to reduce current MTBE production and use to the average level of production and use in calendar years 1986 through 1991. Although the government does not appear to maintain official records on the amounts of MTBE used during each of these years, the most accurate data available indicates that levels of MTBE use in the U.S.[1] were as follows:

1986	55,000 barrels/day
1987	65,000 barrels/day
1988	70,000 barrels/day
1989	75,000 barrels/day
1990	86,000 barrels/day
1991	82,000 barrels/day

Based on this information, it would appear that the average MTBE demand for years '86 - '91 is 72.166 barrels/day. In 1998, the U.S. used 285,000 barrels/day.[2] Therefore, the API-NESCAUM-ALA proposal would reduce MTBE production and use by almost 213,000 barrels/day. Over one-half of this amount could be achieved through implementation of

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[1] DeWitt & Company, MTBE/Oxygenates/Fuels, October 31, 1996.

[2] Memorandum, Oxygenated Fuels Association, April 2000.

California's ban on MTBE, which would reduce MTBE use by 110,000 barrels/day.[3]

I request that you confirm the accuracy of these numbers, or provide the most accurate numbers available. I appreciate your immediate attention to this important issue.

Sincerely,

Henry A. Waxman
Member of Congress

---

[3] California Energy Commission, SUPPLY AND COST OF ALTERNATIVES TO MTBE IN GASOLINE, P300-98-013, February 1999.

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Red Cavaney
President

June 21, 2000

The Honorable Henry A. Waxman
U.S. House of Representatives
Washington, D.C. 20515

Dear Mr. Waxman:

Thank you for your letter of May 31 inquiring about MTBE demand over the 1986-1991 period. Some time was needed to thoroughly assess the data you provided.

We have obtained information from the Energy Information Administration that suggests that the MTBE data in your letter is inclusive of U.S. MTBE exports and also that the 1991 data point is incorrect. Adjusting your data for exports and correcting the 1991 data point gives the following estimates of MTBE demand over the period of interest.[1]

1986	54,400 barrels/day
1987	63,000 barrels/day
1988	68,200 barrels/day
1989	72,800 barrels/day
1990	84,000 barrels/day
1991	104,300 barrels/day

While these estimates appear to be the most accurate data available, they are not officially published statistics, and the amount of uncertainty associated with them is likely to be large.

Based on this data, the average U.S. MTBE demand over the years 1986 -1991 is estimated to be 74,450 barrels per day. According to the USDOE/EIA[2], U.S. MTBE demand in 1998 was roughly 235,000 barrels per day. Hence, it is estimated that MTBE consumption would need to be reduced by 160,550 barrels per day in order to bring consumption down to the average of 1986 -1991 use levels (based on the1998 MTBE demand level).

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[1] DeWitt and Company, Houston, TX.

[2] USDOE/ EIA, personal communication.

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For purposes of comparison, the California Air Resources Board[3] (CARB) also estimated MTBE demand over the period in question. Their estimates are as follows:

1986	69,498 barrels/day
1987	73,382 barrels/day
1988	75,636 barrels/day
1989	85,099 barrels/day
1990	100,481 barrels/day
1991	117,977 barrels/day.

The CARB developed these estimates by assuming that U.S. demand equals 90% of capacity.[4] Based on this data, the average U.S. MTBE demand for the years 1986-1991 is estimated to be 87,012 barrels per day. Undertaking the analogous estimation as was done above with the DeWitt data, it is estimated that MTBE consumption would need to be reduced by 147,988 barrels per day in order to bring consumption down to the average of 1986 -1991 use levels.

That the different data sources yield varying estimates of required MTBE reductions reflects, to a certain extent, the uncertainty inherent in the underlying estimates of MTBE demand over the period in question, as was noted above.

Finally, according to the USDOE/EIA[5], California MTBE demand appears to be roughly 103,022 barrels per day.

Should you have further questions, or if I can be of further assistance to you in this matter, please do not hesitate to call.

Sincerely,

Red Cavaney

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[3] California Air Resources Board, Stationary Source Division, *An Overview of the Use of Oxygenates in Gasoline*, September 1998, www.ARB.CA.GOV.

[4] The estimates were also adjusted for exports.

[5] USDOE/EIA, personal communication.

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WRITTEN STATEMENT FOR THE HEARING RECORD
ON

"THE ENERGY POLICY ACT OF 2005: ENSURING JOBS FOR OUR FUTURE WITH SECURE AND RELIABLE ENERGY."

COMMITTEE ON ENERGY AND COMMERCE

SUBCOMMITTEE ON ENERGY AND AIR QUALITY

U.S. HOUSE OF REPRESENTATIVES

WASHINGTON, DC

FEBRUARY 16TH, 2005

The American Forest & Paper Association (AF&PA) is the national trade association for the forest products industry. We represent more than 240 member companies and related associations that engage in or represent the manufacturers of pulp, paper, paperboard and wood products. America's forest and paper industry ranges from the state-of-the-art paper mills to small, family owned sawmills and some 9 million individual woodlot owners. We compliment Chairmen Barton and Hall for holding these hearings on U.S. energy policy and appreciate the opportunity to provide the Subcommittee with our views on policies that will help maintain existing and create new U.S. manufacturing jobs by increasing the supply of affordable energy resources including natural gas and renewable energy from biomass.

The U.S. forest products industry is vital to the nation's economy. We employ approximately 1.3 million people and rank among the top ten manufacturing employers in 42 states with an estimated payroll of $50 billion. Sales of the paper and forest products industry top $230 billion annually in the U.S. and export markets. We are the world's largest producer of forest products. There isn't a day or a minute that goes by when a forest product isn't part of our lives. The newspapers we read in the morning; the tables where we eat our breakfast and the box that holds the cereal; the desks we work at and the paper in the copying machine; our children's school books; the beds we sleep in and the houses that shelter us – all are forest products that are woven into our everyday lives. Abundant and affordable energy is needed to support the jobs of those who produce the forest products our nation depends on.

Five years ago, the American Forest & Paper Association conducted research to determine the competitive position of U.S. manufacturers of paper and wood products as compared to our primary international competitors. Energy was the one area where our cost of production was slightly better than our competitors. Today, that situation is just the opposite. While the wellhead price of natural gas hovers between $6 and $7 per million British thermal units (BTUs) in the U.S., prices in the rest of the world are noticeably lower. (See attached chart.) Prices of natural gas our competitors pay in Western Europe are in the $5 range. Prices in Asia range from $2 to $3, and in Russia the price for natural gas is less than $1 per million BTU, putting our industry at a significant competitive disadvantage.

This energy disadvantage is on top of other competitive disadvantages we face. Our taxes are higher than those of competing nations, and there are unfair trade barriers to the export of our products. The cost of compliance with our nation's environmental laws is higher, and transportation costs are increasing while service is declining, thus negatively impacting our ability to get our product to market in a cost competitive manner. Government restrictions are also limiting our access to fiber – even though our forestry stock has increased by 39 percent since 1952. If we cannot successfully address these challenges, the public demand for forest products will increasingly be filled by other nations who do not adhere to our high standards.

Today, the U.S. forest products industry is facing serious domestic and international challenges. In the past five years, 92 pulp and paper mills have closed in the U.S., resulting in a loss of 47,000 jobs, or 21% of our workforce. An additional 75,000 jobs have been lost in the wood products industry in the last three years alone. New capacity growth is now taking place in other countries, where forestry, labor, and environmental practices may not be as responsible as those in the U.S.

Energy is the third largest operating cost for the forest products industry. In the pulp, paper and paperboard sector of the industry, energy makes up 10-15 percent of the total operating costs. Since 1972, our industry has reduced its average total energy usage by 17 percent through increased efficiencies in the manufacturing and production process. In addition, we have reduced our fossil fuel and purchased energy consumption by 38 percent, and increased its energy self-sufficiency by 46 percent. Although the industry is nearly 60 percent self-sufficient (using biomass), we also use natural gas, coal, fuel oil, and purchased electricity to meet the balance of our energy needs.

Forest products companies purchase about 400 billion cubic feet of natural gas annually. The price of natural gas in 2004 was nearly triple the average price in the previous two decades. That means the forest products industry has been forced to spend more than $2 billion annually for the same amount of fuel, and prices in 2005 are higher than in 2004. Given the global competition for our products, it has been impossible to fully pass on these costs to our customers. Like other manufacturing industries, forest products companies have responded to the high cost of energy and other competitive factors by downsizing, changing product mix and making other difficult business decisions.

The Congress can play a vital role in helping secure the long-term future of U.S. manufacturers and the jobs they provide by enacting energy legislation that expands energy supply – particularly natural gas, encourages the development of new technology, allows more fuel choices for manufacturers, and encourages the use of combined heat and power (CHP) and other energy efficiency technologies for electricity generation.

Natural Gas Supply

Environmental rules and regulations have driven industry toward increased gas consumption without providing for increased access to the supply that is needed to keep natural gas costs competitive. AF&PA believes that 2005 energy legislation should concentrate on providing substantially more natural gas from increased domestic production (both on and offshore). We support policies to encourage and facilitate increased capacity for Liquefied Natural Gas (LNG). Additional LNG offers the opportunity to increase the short-term energy supply for our nation and for the forest products industry. The Congress should promote capacity to import LNG by adopting legislation that will result in a faster, more streamlined processing of permits, and that identifies the Federal Energy Regulatory Commission as the lead agency for LNG project siting. Congress should also recognize, however, that imported LNG is only part of the answer to our national energy supply needs. In addition, as the demand and supplies of natural gas increase, so too does the need for infrastructure to support the volumes. Legislation encouraging transmission capacity upgrades should be enacted.

R&D for New Technology

An important long-term solution to our natural gas supply problem is the development and deployment of new sources of energy and energy related technologies. Federal research and development dollars are critical to the development of breakthrough manufacturing and energy production technologies using fuel sources such as gasification of biomass and black liquor, a byproduct of the pulping process. For decades, many paper and wood products mills have provided the majority of their own energy production. Many pulp and paper mills, for example, have run their paper machines using electricity largely supplied by mill-operated, on-site electric CHP generation.

The industry has used biomass fuels (such as spent pulping liquor, hog fuels, bark, and wood chips) and purchased fossil fuels to produce steam and electricity used in its manufacturing processes. Our mills produce 42.7 percent of all on-site generation of electrical power in the manufacturing sector. Successful development and full implementation of black liquor and biomass gasification programs could make our industry a net exporter of renewable electricity — removing some 35 million tons of carbon emissions from the air and generating between 18 and 22 gigawatts of electricity from renewable fuels by 2020. In addition, it could result in freeing up as much as 900 billion cubic feet of natural gas per year (almost 1 tcf) for other uses in the economy simply as a result of better utilization of biomass fuels. This technology, however, will not be developed without a public-private partnership. The costs of development and the risk of failure are too high for private industry to bear alone. Considering the tremendous potential national benefits of increased energy supply from a carbon neutral fuel such as biomass it is most appropriate for the federal government to provide support for this pre-commercial research.

Various federal programs to promote renewable energy have over the years excluded from the definition of biomass the spent pulping liquors which contain vast amounts of lignin – the *"glue"* that holds the tree fiber together. This lignin has an energy value similar to that of lignite. It can be gasified – as can other forms of biomass including cellulose and hemicellulose (bark). AF&PA supports changes to the definition of eligible biomass – be it for tax credits or eligibility for research and development dollars – to include all of the elements of wood-based biomass and not just cellulose.

The opportunity for expanded electricity production from renewable biomass-based fuels is ripe. The forest product industry has an aging fleet of boilers that will need to be replaced in the next 5 to 15 years. Federal support of industrial biomass gasification research is essential to industry adoption of new renewable energy production technology. Federal tax credits for electricity produced from renewable fuels could accelerate the adoption and expansion of this new technology by industry.

Fuel Use Flexibility

Congress should also consider measures to provide industry with the flexibility to "fuel-switch" during times of high natural gas prices. Many industrial boilers are capable of burning multiple fuels, but environmental concerns have pushed them towards burning natural gas. When natural gas prices were low, many companies shifted fuel use away from solid and liquid fuels at their multi-fuel/combination boilers and now have permits that essentially locked them into using natural gas.

Furthermore, they may need to make boiler modifications to fuel handling or delivery system. These changes may trigger the New Source Review (NSR) provisions of the Clean Air Act. An NSR review can easily take 18 months to complete. Once complete, NSR may require other plant modifications even if the current air permits are set to accommodate higher emitting fuels. This discourages or prevents fuel switching. In other circumstances, the air permit is set so tight as to not allow other fuels even if an assessment were to show no significant affect on air quality values. To change a permit takes months with additional delays caused by public reviews and limited resources in the states. Again, energy flexibility is thwarted.

Legislation to allow temporary fuel switching could be written so that safeguards are in place to ensure that the air quality would not be harmed. Allowing industrial facilities to switch the fuels they use could have multiple benefits for the companies and the nation. First, more fuel flexibility could help reduce the cost of energy which is so critical to competitive manufactured products. Second, it could allow limited natural gas supply to be diverted to higher and better uses, thus helping to relieve pressure on overall supply.

Encouraging CHP

Energy efficient production of electricity such as that provided through Combined Heat and Power (CHP) should be encouraged. CHP is used widely in the forest products industry. Many pulp and paper mills, for example, run their paper machines using electricity largely supplied by mill-operated, on-site CHP facilities. Importantly, the industry also sells more than 12 million megawatt-hours annually of surplus electricity to the transmission grid - the equivalent of a mid-sized utility. AF&PA supports the Public Utility Regulatory Policy Act of 1978 (PURPA) because it ensures that industrial CHP facilities can access the electric grid in a fair and transparent manner. PURPA recognizes that industrial cogenerators are primarily in the business of making a product – be it pulp and paper, chemicals or other products – not in the primary business of generating electricity. We produce the power because it helps us produce our product more cost-effectively and reliably. Our boilers are sized primarily on the thermal energy needs of our product manufacturing processes, not electricity sales potential.

The President's National Energy Plan calls for a doubling of energy output from CHP units by 2010. CHP is the cornerstone of the Administration's plan to improve energy efficiency and expand sources of electricity generation in an environmentally-friendly way. This goal of expanded CHP power, increased efficiency and more environmentally-friendly power generation will not be met without the assured access to the grid that is afforded by PURPA. During the 108th Congress, the conference committee to H.R. 6 produced compromise language that ensured continued access to the grid by industrial CHP in parts of the country where electric competition does not exist. We supported the compromise language in the last Congress and continue to support it. We are concerned, however, that the "participant funding" provisions of the conference agreement from the 108th Congress may unnecessarily undermine the intent of the spirit of the PURPA compromise language.

AF&PA, therefore, opposes the participant funding provisions of the conference agreement. We believe they are unnecessary and are harmful to the future development of industrial CHP and, in fact, they may be detrimental to overall efforts of increased funding for new transmission lines. Under the conference agreement, an industrial CHP facility could be faced with a substantially higher "price" for transmission upgrades than under existing Federal Energy Regulatory Commission (FERC) policy. Today, FERC uses a variety of different approaches in ensuring that those who benefit from the transmission upgrade pay the costs of the upgrade. Industrial CHP facilities pay the costs for any upgrade necessary to support the power they expect to place to the grid. Under the legislation of the 108th Congress, the local utility would submit a "participant funding plan" to FERC that the FERC must adopt unless it would result in unjust or unreasonable rates for its ratepayers. The just and reasonable standard provides protection to the broad class of rate payers, but not necessarily to the industrial CHP facility unless they are considered to be part of the utility's "native load." In our view, the legislation gives a monopoly incumbent utility the power to essentially "name the price" for the transmission upgrade which could burden new industrial CHP facilities to the point that it will be uneconomic to go forward. We hope the Committee will not include the participant funding language of the conference report to H.R. 6 in its new legislative product for the 109th Congress without modifications to ensure that industrial CHP will not be overburdened by utilities seeking to stop their on-site electric generation.

The U.S. forest products industry faces multiple challenges which together reduce its ability to compete in global markets. Some of these challenges, such as concern about the ongoing availability of wood and healthy forests surrounding us are unique to our industry. But many are problems, like escalating energy costs, which we share with other U.S. manufacturers. Our industry is committed to doing its part to meet these challenges, but successfully addressing them will require changes in federal laws that increase our nation's energy supply, promote research and development of new technologies, allow for more flexibility in fuel choice for manufacturers, and encourage the use of CHP and other energy efficiency technologies for electricity generation. By working together, we can create a climate in which the forest products industry can flourish and ensure that future generations will have the abundant forests, diverse wildlife, secure jobs and useful products that we enjoy today. We appreciate the Committee's interest in understanding how our energy costs affect our manufacturing job base and giving consideration to our suggestions for securing the future.

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